



The Planning Inspectorate  
Yr Arolygiaeth Gynllunio

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# **SCOPING OPINION:**

## **Proposed White Elm Solar Farm**

**Case Reference: EN0110003**

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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

**06 December 2024**

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# 1. INTRODUCTION

- 1.0.1 On 29 October 2024, the Planning Inspectorate (the Inspectorate) received an application for a Scoping Opinion from ELMYA RPC UK Grange Road Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed White Elm 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: <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN0110003>
- 1.0.3 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.
- 1.0.4 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.
- 1.0.5 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.
- 1.0.6 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.
- 1.0.7 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from: <https://www.gov.uk/government/collections/national-infrastructure-planning-advice-notes>

- 1.08 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 Chapters 2 and 3)

| ID  | Ref       | Description            | Inspectorate's comments   |
|-----|-----------|------------------------|---|
| 211 | Para 2.1  | Site boundary          | The Scoping Report states that the site boundary is likely to be refined as the Proposed Development progresses. The ES should describe any alterations to the final boundary for the Development Consent Order (DCO), including an explanation of the reasons for the changes. The Applicant should ensure that the scope of assessments within the ES reflects the maximum extent of the Proposed Development.  |
| 212 | Para 2.3  | Flexibility            | The Inspectorate notes the Applicant's intention to apply a 'Rochdale Envelope' approach to maintain flexibility within the design of the Proposed Development. 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 details are not yet known, will set out the assumptions applied to the assessment in relation to these aspects. 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. The description should be supported (as necessary) by figures, cross-sections, and drawings which should be clearly and appropriately referenced. 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. |
| 213 | Para 2.10 | Construction compounds | The Scoping Report states that the Proposed Development would require temporary construction compound(s) and access tracks within the site, however, the exact location is 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 access tracks.  |

| ID  | Ref            | Description                    | Inspectorate's comments   |
|-----|----------------|--------------------------------|---|
| 214 | Para 2.15      | Watercourse and road crossings | Drainage ditches are likely to be crossed during construction of the Proposed Development. The ES should identify which watercourses and/ or other features, such as roads, 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. Where this has not been determined, 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. Efforts should be made to agree the approach to watercourse and road crossings with the relevant consultation bodies. |
| 215 | Para 2.17-2.21 | Maximum parameters             | The Scoping Report does not describe the maximum proposed height for a number of elements of the Proposed Development, including the onsite substation or the Battery Energy Storage System (BESS). The Applicant's attention is drawn to ID 2.1.2 above, the ES should clearly set out and justify the maximum design parameters for all elements of the Proposed Development and explain how these have been used to inform an adequate assessment in the ES.   |
| 216 | Para 2.26      | Construction activities        | Limited information regarding the construction phase has been provided within the Scoping Report. The ES should describe the assumptions regarding the assessment of the construction phase, including the proposed construction activities (eg the proposed piling method and whether open trench or trenchless techniques for crossings would be used), associated plant and machinery. The assessment should be based on a worst-case scenario.  |
| 217 | Para 2.26      | Construction phasing           | The Scoping Report states that construction is anticipated to last approximately 16 to 24 months. 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.   |

| ID  | Ref       | Description                            | Inspectorate's comments   |
|-----|-----------|--|---|
| 218 | Para 2.35 | Operational and maintenance activities | The ES should describe the potential scope and duration of maintenance works that would be required during the operation of the Proposed Development, including predicted vehicle movements and staffing numbers. 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. Any potential adverse impacts of maintenance activities should also be assessed in the ES where significant effects are likely to occur. Proposals for maintaining vegetation around easements and the Public Rights of Way (PRoW) within the application site should also be described. |
| 219 | NA        | 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 Chapters 4 and 5)

| ID  | Ref       | Description                 | Inspectorate's comments   |
|-----|-----------|-----------------------------|---|
| 221 | Para 4.4  | 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.   |
| 222 | Para 4.26 | Effect interactions         | The Scoping Report notes the Applicant's intention to assess 'in-combination effects'. However, the Scoping Report does not provide a description of 'in-combination effects'. For the avoidance of doubt, the ES should provide an assessment of effect interactions, ie the combined effect of individual impacts on a single receptor where significant effects have been identified throughout the ES aspect chapters.  |
| 223 | NA        | Monitoring                  | 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.   |
| 224 | NA        | Presentation of information | The Inspectorate notes that there are a number of presentation errors within the Scoping Report, this includes the duplication of information. For example, in Chapter 14 of the Scoping Report, paragraphs 14.22 to 14.27 are a copy of paragraphs 14.15 to 14.20. The Applicant should ensure that there are no presentation errors within the ES. It will also aid the reader if the ES uses a consistent chapter structure and contents pages for each subdivision of the document to support navigation. |
| 225 | NA        | Commitments Register        | The Inspectorate notes that a Commitments Register has not been provided with the scoping request. The Inspectorate recommends that a Commitments Register is submitted with the application, provided as a   |

| ID  | Ref | Description   | Inspectorate's comments  |
|-----|-----|---------------|--|
|     |     |               | <p>separate appendix to the ES. The Applicant's attention is drawn to the Inspectorate's Advice Page 'Nationally Significant Infrastructure Projects: Commitments Register'.</p>   |
| 226 | NA  | 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 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 Landscape and Visual

(Scoping Report Chapter 6)

| ID    | Ref                    | Applicant's proposed matters to scope out   | Inspectorate's comments   |
|-------|------------------------|---|---|
| 3.1.1 | Table 6.2              | Effects on landscape and visual receptors outside the Screened Zone of Theoretical Visibility (SZTV) or beyond the 3km study area | The Scoping Report proposes to scope out this matter as it states that a study area of 3km is appropriate to identify significant effects on visual receptors. However, the SZTV identifies the potential for the Proposed Development to be visible beyond 3km. The ES should identify, locate and assess impacts to landscape and visual receptors within the SZTV where significant effects are likely to occur.   |
| 3.1.2 | Para 6.40<br>Table 6.2 | Cumulative effects outside the SZTV or beyond the 3km study area  | <p>The Applicant proposes to scope out an assessment of cumulative landscape and visual effects for approved development that is located beyond 3km of the site boundary or does not meet the criteria set out in Chapter 4 of the Scoping Report. Limited information has been provided on the cumulative schemes in proximity to the Proposed Development. The Inspectorate does not agree that this matter can be scoped out of further assessment. Receptors at risk of significant cumulative effects beyond 3km should be identified and assessed using an appropriate Zone of Theoretical Visibility (ZTV).</p> <p>The cumulative effects assessment methodology (including other projects included in the assessment) should be agreed with the relevant statutory bodies and any exclusions should be clearly justified and explained with reference to the Planning Inspectorate's Advice Note regarding cumulative effects assessment.</p> |
| 3.1.3 | Para 6.40<br>Table 6.2 | Decommissioning phase effects   | Limited justification has been provided to explain why decommissioning effects on landscape and visual receptors should be scoped out of further assessment. In the absence of information, such as evidence of clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope this matter from the assessment without further explanation and justification. Accordingly, the ES should  |

| ID | Ref | Applicant's proposed matters to scope out | Inspectorate's comments   |
|----|-----|---|---|
|    |     |   | include an assessment of these matters, or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects. |

| ID  | Ref            | Applicant's proposed matters to scope out | Inspectorate's comments   |
|-----|----------------|---|---|
| 314 | Para 6.36      | Study area - SZTV                         | The Applicant should demonstrate how their approach to using a SZTV complies with the Landscape Institute's guidance on establishing a ZTV for the landscape and visual impact assessment (LVIA). The Landscape Institute's ZTV approach treats the world as 'bare earth' and does not take account of potential screening by vegetation or buildings.  |
| 315 | Para 6.36–6.39 | Study area                                | The ES should clearly justify the study area used and should ensure that a worst-case scenario is assessed. Where there are elements of the Proposed Development which exceed 3m, such as the proposed solar PV panels, on-site substation or BESS, the Applicant should consider using multiple ZTVs to assess the potential visibility for all components of the Proposed Development. The Applicant should make effort to agree the study area for LVIA with relevant consultees and provide evidence of this within the ES. |
| 316 | Table 6.1      | Viewpoints                                | Table 6.1 sets out the proposed viewpoint locations. The Inspectorate advises that the ES should include confirmation of the consultation undertaken, together with evidence of agreement about the final viewpoint selection. Where any disagreement remains, an explanation as to how the final selection was made should be provided. Viewpoint locations should be identified on a plan within the ES. Baseline viewpoint photography for summer and winter should be provided.   |
| 317 | Para 6.43      | Visualisations                            | The Scoping Report states that it is currently anticipated that visualisations will be provided for five of the fifteen viewpoints (specifically Viewpoints 1, 5, 6, 9 and 11). Limited justification is provided for the selection of these photomontages. The Applicant should fully justify the location and number of visualisations, ensuring these are fully  |

| <b>ID</b> |              |                         |   |
|-----------|--------------|-------------------------|---|
|           |              |                         | <p>representative of the maximum visual envelope of the Proposed Development. The Applicant should seek agreement from relevant consultees regarding the appropriateness of selected photomontages and evidence of this agreement should be provided within the application. The photomontages should show all components of the Proposed Development, including security fencing, CCTV poles, battery storage system, substations etc.</p> |
| 3.18      | Para<br>6.44 | Summer and winter views | <p>The Applicant should ensure visualisations during winter as well as in summer for both Year 1 and Year 15 are provided to allow an assessment of the maximum visibility scenario and illustrate the seasonal differences in screening provided by mitigation planting in line with the Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and Institute of Environmental Assessment, 3rd Edition, 2013).</p> |



### 3.2 Nature Conservation and Biodiversity

(Scoping Report Chapter 7)

| ID  | Ref                    | Applicant's proposed matters to scope out                             | Inspectorate's comments  |
|-----|------------------------|---|--|
| 321 | Para 7.32<br>Table 7.6 | Hazel dormice   | The Scoping Report states that desk-based searches found no records of Dormice within the desk study area, with the closest known population identified approximately 18km south west of the site boundary. In addition, the habitat available on site is not considered suitable for dormice. As such, the Inspectorate agrees this matter may be scoped out.   |
| 322 | Para 7.48<br>Table 7.6 | Impacts of Electric and Magnetic Fields (EMFs) on terrestrial species | The Scoping Report proposes to scope out impacts of EMFs on terrestrial species on the basis that there is no evidence to suggest potential significant effects to terrestrial wildlife and that burial and sheathing would provide a degree of attenuation for the relatively low voltage cabling. The Inspectorate agrees that given the nature of the proposals and the reasoning provided in the Scoping Report, significant environmental effects are unlikely and this matter can be scoped out of further assessment. |
| 323 | Para 7.48<br>Table 7.6 | Impacts of EMFs on aquatic species                                    | The Inspectorate notes that some fish species have a sensitivity to EMFs and could be subject to disturbance resulting from installation of 400kV cabling. The Inspectorate considers that where it is proposed that any such cables cross watercourses the potential effects of EMF on fish should be assessed.   |

| ID  | Ref                | Description        | Inspectorate's comments  |
|-----|--------------------|--------------------|--|
| 324 | Para 7.38,<br>7.40 | Ecological surveys | The Scoping Report does not propose to undertake any detailed surveys for reptiles, invertebrates or fish. The Applicant should agree the number and extent of ecological surveys with relevant statutory bodies. Details of relevant ecological surveys should be |

| ID  | Ref         | Description          | Inspectorate's comments  |
|-----|-------------|----------------------|--|
|     | and<br>7.46 |                      | provided within the ES, or it should be demonstrated that the need for such surveys can be ruled out.  |
| 325 | NA          | Study area           | The Scoping Report does not set out the relevant study area for the nature conservation and biodiversity assessment. The ES should clearly describe the study area(s) used and should ensure the study area(s) reflects the Proposed Development's Zone of Influence (Zol) rather than being based on a fixed distance. Effort should be made to agree the study area(s) with relevant consultation bodies and with reference to relevant guidance.  |
| 326 | NA          | Confidential Annexes | 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. |

### 3.3 Cultural Heritage

(Scoping Report Chapter 8)

| ID  | Ref       | Applicant's proposed matters to scope out        | Inspectorate's comments  |
|-----|-----------|--|--|
| 331 | Para 8.38 | Direct impacts to heritage assets – construction | The Scoping Report states that construction of the Proposed Development would not result in direct physical impacts to any designated heritage assets. The Inspectorate does not consider sufficient information has been presented to provide confidence that significant effects would not occur. In the absence of information such as evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope these matters out from the assessment. The ES should include an assessment of the direct impacts to designated and non-designated heritage assets (including buried archaeological resources) during construction, or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects. |

| ID  | Ref       | Description                             | Inspectorate's comments   |
|-----|-----------|---|---|
| 332 | Para 8.10 | Study area                              | The Scoping Report states that the study area for the cultural heritage assessment is 3km and 1km for designated and non-designated assets, respectively. It is explained that this distance is considered appropriate and is informed by professional judgement. It should be clear how the approach taken ensures that any heritage assets or conservation areas with long views towards or out from the Proposed Development have been identified and considered. The study area should be agreed with the relevant consultation bodies and informed by the visual analysis in the form of understanding the ZTV. The final study areas and locations of the heritage assets should be depicted on supporting plan(s). |
| 333 | Para 8.39 | Impacts to setting of heritage assets – | The ES should identify potential impacts to the setting of heritage assets during construction and decommissioning and assess any impacts that are likely to result in significant effects. For clarity, the ES should consider potential impacts including noise,  |

| ID  | Ref          | Description  | Inspectorate's comments   |
|-----|--------------|--|---|
|     | and<br>8.44  | construction and<br>decommissioning                    | visual, vibration, landscaping and lighting. All elements of the Proposed Development should be considered including haul roads and construction compounds. Both below ground and above ground impacts should be assessed. The assessment of impacts to setting should be supported by baseline data which is sufficient to identify all designated and non-designated heritage assets which could be impacted by the Proposed Development. The ES should fully justify the choice of heritage assets included in the setting assessment and their locations should be depicted on a supporting plan.   |
| 334 | Para<br>8.41 | Impacts to heritage assets<br>- operation              | The Scoping Report states that operation of the Proposed Development has potential for significant adverse effects on heritage assets; however, the potential impacts have not been described. For the avoidance of doubt, the ES should assess any impacts during operation which are likely to result in significant effects on heritage assets and/ or their setting. In line with comments above, the ES should fully justify the choice of heritage assets included in the setting assessment and their locations should be depicted on a supporting plan. The assessment should also be supported by appropriate visualisations such as photomontages to help illustrate the likely impacts of the Proposed Development. Effort should be made to agree appropriate viewpoint locations for such visualisations with relevant consultation bodies. Cross-reference should be made to the LVIA ES assessment to avoid duplication. |
| 335 | Para<br>8.44 | Direct impacts to heritage<br>assets - decommissioning | The Inspectorate considers that there is potential for decommissioning stage impacts on buried archaeological resource, such as the potential for harm due to compaction, removal of piles, and potential changes in drainage patterns. Accordingly, the ES should include an assessment of effects on buried archaeology during decommissioning or the Applicant should provide information such as evidence demonstrating clear agreement with relevant consultation bodies and the absence of likely significant effects.  |
| 336 | Para<br>8.56 | Archaeological fieldwork                               | The Applicant should ensure that the information used to inform the assessment is robust and allows for suitable identification of below ground assets likely to be impacted by the Proposed Development. The Applicant should make effort to agree the need for intrusive investigations, such as trial trenching, with relevant consultation bodies. Intrusive  |

| ID | Ref | Description | Inspectorate's comments  |
|----|-----|-------------|--|
|    |     |             | investigations should be completed prior to submission of the DCO application and reported in the ES, unless otherwise agreed with the relevant consultation bodies. |

### 3.4 Ground Conditions

(Scoping Report Chapter 9)

| ID   | Ref                    | Applicant's proposed matters to scope out | Inspectorate's comments  |
|------|------------------------|---|--|
| 34.1 | Para 9.15<br>Table 9.4 | Landslides – all phases                   | <p>The Scoping Report proposes to scope out an assessment of landslides on the basis that there are no landslide deposits mapped within the project boundary and that the topographic elevation across the Proposed Development site remains generally flat.</p> <p>The Inspectorate agrees to scope this matter out during operation and decommissioning but considers that an assessment of ground instability from construction activities should be provided where there is potential for likely significant effects to occur. Any information relied upon as justification for scoping out matters should be evidenced within the ES.</p> |
| 34.2 | Para 9.16<br>Table 9.4 | Soluble bedrock – all phases              | <p>The Scoping Report proposes to scope out an assessment of soluble bedrock on the basis that the site is not underlain by bedrock which is susceptible to solution features such as limestone/ chalk karst environments.</p> <p>On this basis the Inspectorate agrees to scope this matter out of the ES.</p>  |
| 34.3 | Table 9.4              | Mineral resources – all phases            | <p>The Scoping Report proposes to scope out an assessment of mineral resources on the basis that there is minimal potential for the Proposed Development to sterilise any areas designated as mineral consultation zones or Mineral Safeguarding Areas (MSAs).</p> <p>On this basis and considering Suffolk County Council's response to consultation (Appendix 2 of this Opinion) the Inspectorate agrees to scope this matter out of further assessment.</p>   |

| ID   | Ref      | Description | Inspectorate's comments  |
|------|----------|-------------|--|
| 34.4 | Para 9.6 | Study area  | <p>The Scoping Report states that a study area comprising the site and a data search buffer of 50m–2km will be used for the assessment. Limited justification is presented for the selection of this area. The ES should explain the basis on which the final study area has</p> |

| ID   | Ref                    | Description                           | Inspectorate's comments  |
|------|------------------------|---------------------------------------|--|
|      |                        |                                       | been selected. This should be informed by an understanding of the predicted Zol of the Proposed Development rather than a generic geographical distance.   |
| 34.5 | Para 9.7               | Baseline data sources                 | The Scoping Report refers to various data sources which have been utilised to characterise the baseline conditions at the site and it is further stated that additional datasets will be sourced as part of the Phase 1 Desk-based Geo-environmental Report and site walkover. Copies of reports used to establish the baseline conditions at the Proposed Development site should be submitted as part of the ES, which could be in the form of technical appendices.   |
| 34.6 | Para 9.26              | BESS and firewater                    | The ES should include consideration of the potential for escape of firewater/ foam and contaminants that they may contain as an impact pathway to surface and groundwater receptors. Suitable protection measures should be identified for any likely significant effects identified.  |
| 34.7 | Para 2.15              | Horizontal Directional Drilling (HDD) | The Scoping Report states that HDD may be used where crossing point relates to a local adopted highway or a water course depending on the circumstances. HDD may lead to a risk of contamination of controlled waters. Where HDD is proposed to be used, the Applicant should provide an assessment of any effects associated with its use.  |
| 34.8 | Para 9.35<br>Table 9-3 | Definition of significant effects     | Scoping Report Table 9-3 provides the combination of receptor sensitivity and magnitude of impact but does not explain which effects will be considered significant or how it will be determined whether an effect is significant if the outcome has potential to be either minor or moderate or either moderate or major etc. The ES should clearly set out how significant effects are defined and describe how any decisions are made where there is potential for an effect to either be significant or not. |

### 3.5 Socio Economics

(Scoping Report Chapter 10)

| ID   | Ref                      | Applicant's proposed matters to scope out         | Inspectorate's comments  |
|------|--------------------------|---|--|
| 35.1 | Para 10.15<br>Table 10.6 | Housing supply – construction and decommissioning | The Applicant intends to accommodate any construction or decommissioning workers who reside from outside of the local area in serviced and/ or non-services accommodation as opposed to residential dwellings (rental or otherwise). The Inspectorate agrees that this matter can be scoped out from the assessment provided that the availability of local accommodation and services will not be impacted, and there is evidence that this approach has been agreed with relevant consultation bodies. The estimated number of potential workers for the construction and decommissioning phases should be provided in the ES. |

| ID  | Ref                     | Description               | Inspectorate's comments  |
|-----|-------------------------|---------------------------|--|
| 352 | Table 10.5              | Recreational routes/ PRow | No reference is made to tourism or recreational routes within the socio economics aspect chapter. An assessment of the impact on tourism and the use of recreational routes including PRow should be considered as part of the wider socio economics aspect in the ES.   |
| 353 | Para 10.11-10.13        | Workforce                 | The Scoping Report states that the Proposed Development will provide increased employment opportunities and economic output. The ES should provide the anticipated number of jobs proposed to be created for each phase of the Proposed Development and consider the potential impact of construction workers on the capacity of local services. |
| 354 | Para 10.7<br>Table 10.4 | Study area                | The Applicant is requested to set out the data sources used to inform the assessment including justification of the identified Zol used within the assessment. Consultation with the relevant Local Planning Authorities is recommended to agree the Zol and this should be documented within the ES.  |



### 3.6 Transport and Access

(Scoping Report Chapter 11)

| ID   | Ref                      | Applicant's proposed matters to scope out   | Inspectorate's comments   |
|------|--------------------------|---|---|
| 36.1 | Para 11.18<br>Table 11.1 | Impacts on pedestrian delay, non-motorised user amenity and fear/ intimidation – all phases | <p>The Scoping Report proposes that due to the limited number of pedestrians anticipated within the vicinity of the site, impacts to pedestrians in terms of pedestrian delay, amenity and fear/ intimidation will not be assessed. The Inspectorate is content that these matters can be scoped out for the operational phase, but not in relation to construction and decommissioning due to the limited baseline information provided.</p> <p>The ES should assess impacts to users of PRoW or other recreational routes (including pedestrian delay, amenity and fear/ intimidation) during construction and decommissioning which are likely to result in significant effects. Any such assessment should be supported by pedestrian/ user counts where possible, with effort made to agree the locations for such counts with relevant consultation bodies. Where relevant, the ES should assess potential interactions between aspect assessments (for example traffic and transport, noise, dust, recreation and visual impact). The locations of any diversions or closures should be illustrated on suitable figures in the ES.</p> |
| 362  | Para 11.12               | Detailed assessment of traffic where the relevant thresholds are not exceeded – all phases  | <p>The Scoping Report states that where the predicted increase in traffic and heavy goods vehicles (HGVs) flows are lower than the 30% threshold and 10% threshold (where links are in proximity to sensitive receptors) for detailed assessment set out in the Institute of Environmental Management and Assessment (IEMA) guidance 'Environmental Assessment of Traffic and Movement' (2023), the significance of the effects would be low and not significant, and a detailed assessment would not be required. The Inspectorate is content to scope out detailed assessments where the relevant thresholds have not been exceeded, subject to the ES confirming the numbers and types of vehicles for all phases (with reference to thresholds within guidance), as well as proposed access/ transport routes to justify this position.</p>   |

| ID  | Ref                 | Description                       | Inspectorate's comments  |
|-----|---------------------|-----------------------------------|--|
| 363 | Para 11.6 and 11.11 | Study area                        | The ES should confirm the final study area and 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 industry 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 numbers of vehicle movements (including vehicle type, peak hour and daily movements) should be included in the ES.  |
| 364 | Para 11.6           | Baseline                          | The Scoping Report states that the Transport and Access ES chapter would consider baseline transportation conditions including traffic flows and highways safety. The ES should describe the baseline environment in full including pedestrian/ user counts, existing land uses and existing site access.  |
| 365 | Para 11.6           | Traffic survey                    | The Scoping Report states that traffic counts will be undertaken, if considered necessary. The ES should identify the locations of traffic count surveys, explain how these locations were selected and confirm precise details of when the counts were undertaken. Effort should be made to agree these details with relevant local highway authorities. To provide assurance that the assessment of likely significant effects is supported by a 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 on the network. The Inspectorate notes the reference to Appendix 13.1 which has not been included in the Scoping Report. The Applicant should ensure that all relevant documentation referenced within the ES is provided with the DCO application. |
| 366 | NA                  | Abnormal Indivisible Loads (AILs) | The Scoping Report does not set out whether any AIL movements would be required. The ES should detail whether any AIL movements are required (for example the larger infrastructure such as the BESS) and assess any potential likely significant effects.   |

### 3.7 Noise and Vibration

(Scoping Report Chapter 12)

| ID   | Ref   | Applicant's proposed matters to scope out   | Inspectorate's comments   |
|------|---|---|---|
| 37.1 | Para 12.4, 12.36, 12.37 and 12.51<br>Table 12.4 | Noise and vibration assessment (including traffic) – construction and decommissioning | <p>The Scoping Report proposes to scope out an assessment of impacts from construction noise and vibration on the basis of the site's remote location and that noise would be temporary and occurring during the day. Furthermore, the Scoping Report states that best practicable means can be used to control construction noise and a Construction Environmental Management Plan (CEMP) would be prepared detailing how environment effects can be managed. The Inspectorate notes the assumption that solar panel frame supports would be installed using a push-piling rig rather than impact-driven piles.</p> <p>On this basis the Inspectorate agrees to scope this matter out of further assessment on the provision that the ES supplies the information required to demonstrate the absence of a likely significant effect, such as providing evidence that the type and number of vehicles would not exceed relevant thresholds in guidance requiring detailed assessment as well as the proposed access routes to justify this. Any proposed mitigation measures (such as the proposed use of a push-piling rig rather than impact-driven piles) should be described and their delivery secured through the dDCO or other legal mechanism.</p> |
| 37.2 | Table 12.4                                      | Operational vibration   | <p>The Scoping Report proposes to scope out operational vibration but does not provide a justification as to why significant effects are not likely to occur.</p> <p>Considering the characteristics of the Proposed Development, the Inspectorate is content for this matter to be scoped out. The ES should demonstrate that operational plant and equipment is of a type and to be used in locations unlikely to result in significant vibration impacts on sensitive receptors.</p>   |

| ID  | Ref                | Description                             | Inspectorate's comments  |
|-----|--------------------|---|--|
| 373 | NA                 | Study area                              | <p>The Scoping Report does not establish a study area for noise and vibration. The ES should establish the study area and explain how the study area and sensitive receptors have been selected with reference to the extent of likely impacts. The ES should provide a plan showing the location of all sensitive receptors identified for assessment. Effort should be made to agree the study area and approach to the assessment with relevant consultation bodies.</p>  |
| 374 | Para 12.6 and 12.8 | Sensitive receptors and baseline survey | <p>The Scoping Report states that various noise-sensitive receptors are distributed across the site but does not establish the type or location of these receptors.</p> <p>The ES should explain the basis on which receptor locations are determined to be representative and include a plan showing the location of all sensitive receptors identified for assessment to aid understanding of the potential for significant effects relating to noise. Effort should be made to agree the sensitive receptors and locations for the baseline noise survey with relevant consultation bodies.</p>   |
| 375 | NA                 | Receptors – cross referencing           | <p>The Inspectorate considers that noise and vibration may also have potential to lead to adverse effects on landscape and visual receptors, in terms of tranquillity for example, and on cultural heritage assets. Potential adverse effects on landscape and cultural heritage should be cross referenced in the relevant aspect chapters in the ES. The ES should also consider whether any ecological receptors require consideration in respect of noise and vibration related impacts. The Applicant should seek agreement from the relevant consultation bodies on any ecological receptors and cross refer to relevant chapters within the ES.</p> |
| 376 | Para 12.51         | Working hours                           | <p>The Scoping Report states that construction noise would occur during the daytime only. The ES should confirm the working hours and identify any need for works outside of these hours, including night-time working. Working hours should be consistent with those specified in the dDCO/ CEMP. For the avoidance of doubt, the assessment of the operational phase should reflect the hours of operation of the Proposed Development (assumed by the Inspectorate to be 24 hours a day, 365 days a year).</p>  |

### 3.8 Air Quality and Greenhouse Gases

(Scoping Report Chapter 13)

| ID   | Ref                      | Applicant's proposed matters to scope out                                    | Inspectorate's comments  |
|------|--------------------------|--|--|
| 38.1 | Para 13.60<br>Table 13.2 | Non-Road Mobile Machinery (NRMM) emissions – all phases                      | The Inspectorate agrees that emissions from NRMM can be scoped out provided information on the type, duration and location of NRMM is shown in the ES to demonstrate that this would not result in likely significant effects.   |
| 38.2 | Para 13.53 and 13.54     | Air quality assessment – decommissioning                                     | The Scoping Report proposes to scope out a decommissioning phase air quality assessment on the basis that exhaust emissions from road traffic in the far future are likely to be zero at the latest by 2050 and that baseline air quality 45 years from the opening of the project cannot be accurately predicted. However, limited details regarding the potential decommissioning activities have been provided in the Scoping Report. The Inspectorate agrees that this matter can be scoped out, subject to evidence provided in the ES demonstrating that road traffic emission effects during the decommissioning phase would be similar to or less than during the construction phase, or there is clear agreement with relevant consultation bodies. |
| 38.3 | Para 13.57               | Greenhouse gas (GHG) effects associated with operational transport emissions | The Scoping Report proposes to scope out GHG effects associated with operational traffic emissions on the basis that maintenance traffic movements would be minimal.<br><br>Considering the nature of the Proposed Development, the Inspectorate agrees that significant effects are not likely and that this matter can be scoped out of further assessment. However, the ES description of development should confirm the operational vehicle types and numbers (with reference to thresholds within guidance) to justify this position.   |
| 38.4 | Para 13.58               | GHG emissions - decommissioning  | The Applicant proposes to scope out an assessment of the decommissioning phase on the basis that at the point of decommissioning, which is assumed to be at least 40 years in the  |

| ID  | Ref           | Applicant's proposed matters to scope out                               | Inspectorate's comments  |
|-----|---------------|---|--|
|     | and<br>13.59  |   | <p>future, the UK would have reached net zero and therefore decommissioning the Proposed Development would have a minimal contribution to the overall GHG footprint.</p> <p>The ES should provide an assessment GHG emissions for the lifetime of the Proposed Development including decommissioning. As such, the Inspectorate does not agree that this matter can be scoped out. The ES should clearly set out how impacts to/ from climate change are to be assessed for the decommissioning phase. Where future decarbonisation is proposed to be taken into account, the ES should clearly explain where guidance has been used to determine that this is an acceptable approach, justify the relevant projection scenario, and identify any limitations or uncertainties associated with such future projections. Where uncertainty remains, the Applicant should consider whether it would be more appropriate to conduct the assessment based on current carbon emissions to assess a worst-case scenario.</p> <p>The Inspectorate would expect to see a Decommissioning Environmental Management Plan (DEMP), agreed with the Local Planning Authorities, secured through the inclusion of an outline DEMP or similar with the application.</p> |
| 385 | Para<br>13.74 | Detailed assessment of construction traffic impacts on ecological sites | <p>On the basis that the Decision Making Thresholds set out by the Joint Nature Conservation Committee are not exceeded and that the roads affected by the Proposed Development are more than 200m from any designated site, the Inspectorate agrees that a detailed assessment of construction traffic impacts on ecological sites can be scoped out.</p>   |
| 386 | Para<br>13.75 | Traffic emissions - operation   | <p>The Inspectorate notes that the Scoping Report states that traffic movements during operation are expected to be low, and it is therefore anticipated that the impacts of emissions from these vehicles will be screened out of the assessment, following the Environmental Protection UK (EPUK) and Institute of Air Quality Management's (IAQM's) guidance.</p> <p>The Inspectorate, considering the nature and scope of the Proposed Development, agrees to this approach subject to confirmation in the ES that the proposed operation vehicle</p>  |

| <b>ID</b> | <b>Ref</b> | <b>Applicant's proposed matters to scope out</b> | <b>Inspectorate's comments</b>  |
|-----------|------------|--|---|
|           |            |  | numbers alone or cumulatively with other proposals on relevant links will not exceed the relevant EPUK and IAQM's thresholds. |

| <b>ID</b> | <b>Ref</b> | <b>Description</b>                | <b>Inspectorate's comments</b>   |
|-----------|------------|-----------------------------------|--|
| 38.7      | Para 13.66 | Study area                        | The Scoping Report states that the study area for sensitive ecological receptors will be up to 50m from the site boundary or 50m from the edge of the routes used by construction vehicles. The ES should provide justification with reference to the relevant guidance for the study area for ecological receptors and agree this where possible with relevant consultation bodies. The ES should include a plan showing the extent of the final study area, including proposed construction routes, the location of receptors (human and ecological) considered in the assessment. |
| 38.8      | Para 13.70 | Baseline                          | The Scoping Report details that dispersion modelling calculations (if required) would be verified using data gathered in the baseline air quality survey. Effort should be made to reach agreement with relevant consultation bodies including the local authorities, as to whether any additional survey or monitoring work is required to inform the baseline, including for other pollutants.   |
| 38.9      | Para 13.8  | GHG impact assessment assumptions | The GHG impact assessment within the ES should clearly describe any assumptions made in determining the quantification of any emissions reduction resulting from the Proposed Development such as the displacement of fossil fuel power generation.  |
| 38.10     | 13.76      | GHG assessment methodology        | The ES should ensure that where guidance is used to inform the assessment methodology that it is clear how it has been applied and where differences occur in the approach, that reasons are given for any changes. The ES should seek to agree the approach to the GHG assessment with the relevant consultation bodies with evidence of any agreement provided in the ES.  |

### 3.9 Agriculture

(Scoping Report Chapter 14)

| ID   | Ref                      | Applicant's proposed matters to scope out                 | Inspectorate's comments   |
|------|--------------------------|---|---|
| 39.1 | Para 14.21<br>Table 14.1 | Disruption to farms and farming activities - construction | No justification regarding the scoping out of this matter is provided within the Scoping Report, therefore the Inspectorate is unable to agree to scope this matter out of further assessment. The ES should ensure that effects to agricultural land holdings are assessed over the entire lifetime of the Proposed Development including the construction, operational and decommissioning phases. Any deviation from this approach must be fully justified within the ES, including evidence of agreement with relevant consultation bodies. |
| 39.2 | Para 14.21<br>Table 14.1 | Effects on soils from cable installation off-site         | The Scoping Report does not provide sufficient justification regarding the scoping out of this matter. The Inspectorate is unable to agree to scope this matter out of further assessment. The ES should ensure that effects to soils from cable installation off-site are assessed over the entire lifetime of the Proposed Development. Any deviation from this approach must be fully justified within the ES, including evidence of agreement with relevant consultation bodies.  |

| ID   | Ref       | Description                | Inspectorate's comments  |
|------|-----------|----------------------------|--|
| 39.3 | Para 14.2 | Study area                 | The ES should clearly set out the study area relevant to the agriculture assessment. The ES should include a clear justification as to how the study area has been chosen and how it relates to the extent of the likely impacts. The study area and receptors should be depicted on corresponding figure(s) to aid understanding. |
| 39.4 | Para 14.5 | Soil Management Plan (SMP) | The Scoping Report states that a SMP will be produced, detailing measures to mitigate adverse effect to soils. For clarity, a draft/ outline version should be provided with the application and appropriately secured via the dDCO.   |



| ID  | Ref        | Description                                   | Inspectorate's comments   |
|-----|------------|---|---|
| 395 | Para 14.10 | Agricultural Land Classification (ALC) survey | The Applicant has stated that they will conduct a 'semi-detailed' ALC survey at the site. The Applicant should ensure that any approach is justified, aligns with relevant guidance and/ or standards (eg Natural England Technical Information Note TIN049, 2012), and is agreed with the relevant consultation bodies.  |
| 396 | Para 14.20 | Cumulative effects                            | The Scoping Report states that sites smaller than 20 hectares (ha) will not be included within the cumulative assessment as a development of this size would not normally be considered for its impact for loss of agricultural land. Cumulative impacts on Best and Most Versatile (BMV) land should be assessed at a national and local level. The Inspectorate advises that effort should be made to agree the methodology, study area and approach to the assessment with relevant consultation bodies and would expect the ES to provide clear justification for how the use of this threshold allows cumulative impacts to be assessed. |
| 397 | NA         | Agricultural land                             | <p>The ES should contain a clear tabulation of the areas of land in each BMV classification to be temporarily or permanently lost as a result of the Proposed Development, with reference to accompanying plan(s) depicting the grades. Specific justification for the use of the land by grade should be provided.</p> <p>Consideration should also be given to the use of BMV land in the Applicant's discussion of alternatives.</p>   |

### 3.10 Other Environmental Topics

(Scoping Report Chapter 15)

| ID     | Ref        | Applicant's proposed aspects to scope out | Inspectorate's comments   |
|--------|------------|---|---|
| 3.10.1 | Para 15.5  | Glint and glare                           | The Scoping Report proposes to scope out a glint and glare ES aspect chapter, however a standalone glint and glare assessment is proposed to be submitted as a technical appendix to ES. The Inspectorate is content with this approach, however the standalone glint and glare assessment should assess the worse-case scenario and provide a description of any relevant mitigation measures and safety considerations. In the event that glint and glare effects are identified, it should be used to inform the relevant chapters in the ES, in particular for the LVIA aspect Chapter.   |
| 3.10.2 | Para 15.13 | Major accidents and disasters             | A standalone chapter for major accidents and disasters is not proposed on the basis that potential accidents and disasters will be assessed in other chapters where relevant. The Inspectorate has considered the characteristics of the Proposed Development and agrees with this approach. The Applicant's attention is drawn to the Health and Safety Executive's comments relating to potential hazards and receptors to be addressed within the ES. The Inspectorate considers that the risk of battery fire/ explosion should be addressed in the ES, including any measures designed to minimise impacts on the environment in the event of such an occurrence. These measures should be set out and secured in the DCO. |
| 3.10.3 | Para 15.14 | Heat and radiation                        | The Scoping Report proposes to scope out an assessment of impacts from heat and radiation during construction, operation and decommissioning as no significant sources of heat and radiation are anticipated due to the scale and nature of the Proposed Development. The Inspectorate agrees that this matter may be scoped out from further consideration provided that the ES clearly signposts any identified sources of heat and radiation and how this has been considered with respect to site selection, site layout and mitigation design.   |

| ID    | Ref                 | Applicant's proposed aspects to scope out              | Inspectorate's comments   |
|-------|---------------------|--|---|
| 3.104 | Para 2.45 and 15.17 | Electric, magnetic and electromagnetic fields (EMF)    | The Scoping Report states that the voltage of the on-site cables between the solar farm and new Elmya Grange National Grid substation are likely to be 400kV. In line with relevant guidance (DECC Power Lines: Demonstrating compliance with EMF public exposure guidelines, A Voluntary Code of Practice 2012), cables above 132kV have potential to cause EMF effects. The Inspectorate considers that an EMF assessment should be provided in an appendix to the Environmental Statement. This should include the location, routing, and voltages of any cables over 132kV and a risk assessment to any human and ecological sensitive receptors within the Zol.  |
| 3.105 | Para 15.19          | Human health   | On the basis that the technical chapters of the ES will consider the potential effects of human health within their own assessments, the Inspectorate is in agreement that a standalone assessment on human health is not required. The ES should clearly signpost where impacts relating to human health have been considered in the relevant technical chapters.  |
| 3.106 | Para 15.22-15.24    | Utilities, telecommunications and television reception | The Inspectorate is content to scope these aspects out provided that the ES sets out the findings of the desk-based assessment and how this has been taken into account in the design to mitigate potential impacts.  |
| 3.107 | Para 15.27          | Operational waste                                      | <p>The Inspectorate notes the Applicant's intention to provide a proportionate assessment of construction waste within the ES. However, the Scoping Report proposes to scope out an assessment of operational waste.</p> <p>The ES should contain a description of the potential waste streams from all phases of the Proposed Development, including estimated volumes and an assessment of the likely significant effects. In addition, the ES should describe any measures implemented to minimise waste and state whether the waste hierarchy will be utilised. The CEMP, DEMP and Site Waste Management Plan (SWMP) should include as much detail as possible in relation to on-site waste management, recycling opportunities, and off-site disposal. The</p> |

| ID    | Ref              | Applicant's proposed aspects to scope out     | Inspectorate's comments   |
|-------|------------------|---|---|
|       |                  |   | ES should also explain if extensive replacement of solar panels or other infrastructure is likely to be required during the lifetime of the Proposed Development.   |
| 3.108 | Para 15.28-15.68 | Hydrology and flood risk                      | The Applicant proposes to scope out an assessment of hydrology and flood risk on the basis that potential impacts would be addressed in the Flood Risk Assessment (FRA) and Surface Water Drainage Strategy. In the absence of information such as evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to scope this matter out from the assessment. Accordingly, the ES should include an assessment of this aspect, or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.                                 |
| 3.109 | Para 15.64       | Hydrology and flood risk - cumulative effects | The Scoping Report does not provide any evidence to justify the conclusion of " <i>nil detriment</i> " in terms of offsite/ downstream hydrogeology related impacts from the Proposed Development. Other developments for inclusion in the ES cumulative assessment have also not been identified at this stage. The Inspectorate is therefore not in a position to agree that this matter can be scoped out. The ES should identify relevant other developments within the catchment with potential to result in cumulative impacts on hydrological, hydrogeological and flood risk receptors. Any likely significant cumulative effects should be assessed. |

| ID      | Ref       | Description    | Inspectorate's comments   |
|---------|-----------|----------------|---|
| 3.10.10 | Table 3.5 | Climate change | Scoping Report Table 3.5 indicates that ES Chapter 15 ('Other Environmental Topics') will include consideration of climate change. However, no reference is made within the Scoping Report to an assessment of climate change, and it is therefore unclear what impacts on/ from climate change are to be considered within ES Chapter 15 ('Other Environmental Topics') as distinct from GHG emissions (proposed to be assessed in ES Chapter 13 ('Air Quality and Carbon Saving')). ES Chapter 15 should describe any potential impacts on/ from climate change and provide an assessment of any likely |

| ID | Ref | Description | Inspectorate's comments   |
|----|-----|-------------|---|
|    |     |             | <p>significant effects. This should include a description and assessment of any likely significant effects resulting from the vulnerability of the Proposed Development to climate change. Where relevant the Climate Change chapter of the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This should include a description of any measures embedded into the design to enable climate resilience during construction, operation and decommissioning.</p> |

## 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)')

| <b>SCHEDULE 1<br/>DESCRIPTION</b>                   | <b>ORGANISATION</b>                                 |
|---|---|
| The relevant parish council(s)                      | Stowupland Parish Council                           |
|   | Mendlesham Parish Council                           |
|   | Cotton Parish Council                               |
|   | Wetheringsett-cum-Brockford Parish Council          |
|   | Thorndon Parish Council                             |
|   | Finningham Parish Council                           |
|   | Gislingham Parish Council                           |
|   | Old Newton with Dagworth and Gipping Parish Council |
|   | Earl Stonham Parish Council                         |
|   | Stonham Parva Parish Council                        |
|   | Bacton Parish Council                               |
|   | Wickham Skeith Parish Council                       |
|   | Stoke Ash and Thwaite Parish Council                |
|   | Thorham Magna Parish Council                        |
| The Environment Agency                              | Environment Agency                                  |
| Natural England                                     | Natural England                                     |
| The Forestry Commission                             | Forestry Commission                                 |
| The Historic Buildings and Monuments Commission for | Historic England                                    |

| <b>SCHEDULE 1<br/>DESCRIPTION</b>  | <b>ORGANISATION</b>   |
|--|---|
| England (known as Historic England)  |   |
| The relevant internal drainage board   | Waveney, Lower Yare and Lothingland Internal Drainage Board |
| The relevant Highways Authority  | Suffolk County  |
|  | National Highways   |
| 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 Crown Estate Commissioners   | Crown Estate  |
| The relevant police authority  | Suffolk Police and Crime Commissioner                       |
| The relevant ambulance service   | East of England Ambulance Service NHS Trust                 |
| The relevant fire and rescue authority   | Suffolk 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)

| <b>STATUTORY UNDERTAKER</b>        | <b>ORGANISATION</b>                                    |
|------------------------------------|--|
| The relevant Integrated Care Board | NHS Suffolk and North East Essex Integrated Care Board |

| <b>STATUTORY UNDERTAKER</b>              | <b>ORGANISATION</b>                          |
|--|--|
| NHS England                              | NHS England                                  |
| The relevant NHS Trust                   | East of England Ambulance Service NHS Trust  |
| Railways                                 | National Highways Historical Railways Estate |
| 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                                |
|  | Essex and Suffolk Water                      |
| 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                             |
|  | 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                 |  |



| STATUTORY UNDERTAKER                                 | ORGANISATION  |
|--|---|
|  | 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 | Eastern Power Networks Plc                          |
|  | Advanced Electricity Networks Ltd                   |
|  | Aidien Ltd  |
|  | Aurora Utilities Ltd                                |
|  | Eclipse Power Network Limited                       |
|  | Energy Assets Networks Limited                      |
|  | ESP Electricity Limited                             |
|  | Fulcrum Electricity Assets Limited                  |
|  | 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                         |

| STATUTORY UNDERTAKER                                 | ORGANISATION                                       |
|--|--|
|  | The Electricity Network Company Limited            |
|  | UK Power Distribution Limited                      |
|  | Utility Assets Limited                             |
|  | Vattenfall Networks Limited                        |
|  | UK Power 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               |
|-------------------------------|
| East Suffolk Council          |
| Babergh District Council      |
| Ipswich Borough Council       |
| South Norfolk Council         |
| West Suffolk Council          |
| Breckland District Council    |
| Mid Suffolk District Council  |
| Broads Authority              |
| Essex County Council          |
| Suffolk County Council        |
| Cambridgeshire County Council |
| Norfolk County Council        |

## APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

| <b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b> |
|---|
| Anglian Water   |
| Broads Authority  |
| Cotton Parish Council   |
| East Suffolk Council  |
| Environment Agency  |
| Essex County Council  |
| Forestry Commission   |
| Health and Safety Commission                                      |
| Historic England  |
| Mendlesham Parish Council   |
| Mid Suffolk District Council                                      |
| National Gas  |
| National Grid Electricity Transmission Plc                        |
| National Highways   |
| Natural England   |
| South Norfolk Council   |
| Stoke Ash and Thwaite Parish Council                              |
| Suffolk Fire and Rescue Service                                   |
| Suffolk County Council  |
| UK Health Security Agency   |
| Waveney, Lower Yare and Lothingland Internal Drainage Board       |
| Wetheringsett-cum-Brockford Parish Council                        |



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

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

[www.anglianwater.co.uk](http://www.anglianwater.co.uk)

Our ref: White Elm/ ScopingResponse

26<sup>th</sup> November 2024

Dear Mr. Brumwell,

**Application by ELMYA RPC UK Grange Road Limited (the Applicant) for an Order granting Development Consent for the White Elm Solar Farm (the Proposed Development)**

Thank you for the opportunity to comment on the Environmental Impact Assessment (EIA) Scoping Report for the White Elm project which is located within the District of Mid Suffolk.

Anglian Water Services (AWS) is the appointed sewerage undertaker for all of the project area shown in Figure 1.1. The following response is submitted on behalf of AWS in its statutory capacity regarding water recycling centres (WRC), water recycling assets and the sewer network, as well as the related role of surface drainage.

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 (where relevant) 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 to affect existing and proposed utility infrastructure within and adjacent to the site (Section 15.20). Given the potential location and extent of the proposed development area, it appears that Anglian Water does not have above and below ground assets within the red line project boundary. However, in locations near to the boundary there are existing sewerage assets including water recycling centre / sewage treatment works and drainage pipe connections (sewers and rising mains) which can be in areas beyond the highway verges and serve the surrounding businesses and communities of Thwaite and Wickham Skeith. For example, there is a water recycling centre at Thwaite north of the village off Wickham Road. There are sewers and rising mains running along Grange Road and

Daisy Green Lane in Wickham Skeith. The latter links to the Cotton water recycling centre, located off Brook House Road to the north of the village of Cotton.

Utilities searches are required to establish the extent of AWS's assets within the vicinity of 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 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](mailto: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.

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 Development Consent Order (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 of the pipe exceeds 400 millimetres.

### Management Plans

The management plans listed under Sections 2.29 and 11.10 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 12.4), 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](mailto:connections@anglianwater.co.uk)

### **Scheme assessment, design, mitigation and connections**

AWS notes the absence of any reference to AWS in the Scoping Report in terms of:

- Whether the management of surface water will require a public sewer connection;
- If water recycling/ sewerage services are required for the construction or operation of the scheme.

## Drainage and Surface Water

AWS welcomes the statements in Section 15 that the Flood Risk Assessment (FRA) and Surface Water Drainage Strategy will assess all potential impacts of the development on hydrology and flood risk. The FRA is expected to explain the benefits to surface water flood risk arising from the Proposed Development associated with the change to land use. It will also present the proposed drainage strategy to manage run-off from proposed impermeable areas. Section 15.27 also states an appropriate drainage strategy will be developed for the battery compound which will include the safeguard of appropriate capacity of on-site containment of run-off.

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.

The FRA and drainage strategy should include details of 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 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: [planningliasion@anglianwater.co.uk](mailto:planningliasion@anglianwater.co.uk)

## **Engagement and next steps**

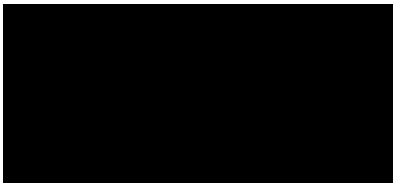
We consider AWS should be included on the list of utilities owners to be drawn up by the Applicant, as set out in Section 15.20 of the Scoping Report. AWS would welcome engagement

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 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 water recycling connections (if any).
4. Confirmation of the project's cumulative impacts (if any) with AWS projects.
5. The draft 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 Carry Murphy  [@anglianwater.co.uk](mailto:carry.murphy@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

c.c. ELMYA RPC UK Grange Road Limited [info@whiteelmsolarfarm.com](mailto:info@whiteelmsolarfarm.com)

## Patten, Jack

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**From:** Steve Kenny [REDACTED]@broads-authority.gov.uk>  
**Sent:** 18 November 2024 11:10  
**To:** White Elm Solar Farm  
**Subject:** EIA Scoping Notification and Consultation - The White Elm Solar Farm - EN0110003

You don't often get email from [REDACTED]@broads-authority.gov.uk. [Learn why this is important](#)

[whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)

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

Date: 18 November 2024      Your ref:      EN0110003

Dear Todd Brumwell,

Application No      :      **BA/2024/0385/SCOCON**  
Proposal            :      **EIA Scoping Notification and Consultation - The White Elm Solar Farm**  
Address             :      **The White Elm Solar Farm**  
Applicant           :      **ELMYA RPC UK, Grange Road Limited**

I write further to the above proposal. I can confirm that the Broads Authority does not have any comments to make at this stage.

Yours sincerely,

**Steve Kenny**

Development Manager

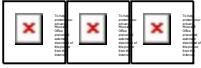
T: [REDACTED]  
E: [REDACTED]@broads-authority.gov.uk

Broads Authority  
Yare House, 62-64 Thorpe Road, Norwich NR1 1RY

*The Planning Team has an agile working pattern so are not present in the office at all times. We would recommend that you contact us by email and phone for correspondence as this will enable your enquiry to be dealt with more quickly.*







[broads-authority.gov.uk](http://broads-authority.gov.uk)

[visitthebroads.co.uk](http://visitthebroads.co.uk)

[watermillsandmarshes.org.uk](http://watermillsandmarshes.org.uk)

[northsearegion.eu/canape](http://northsearegion.eu/canape)

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**From:** [REDACTED]@cotton-pc.gov.uk  
**Sent:** 25 November 2024 11:56  
**To:** White Elm Solar Farm  
**Subject:** White Elm Solar Farm

**Categories:** EST

**COTTON PARISH COUNCIL**

**Response to the Planning Inspectorate re. White Elm Solar Farm**

Cotton Parish Council has received notification from the Planning Inspectorate of the Scoping Report by ELMYA RPC UK relating to White Elm Solar Farm.

We understand that this application is at an early stage, and we are asked by the Planning Inspectorate to detail items, relevant to the Parish, that we consider should be provided in the Environmental Statement from the applicant.

We have been able to look at the documents on the website and would ask that the following issues are covered in detail please on behalf of our residents, especially those nearest the proposed development.

- The impact on residents and infrastructure of all issues relating to the construction, development, operation and future decommissioning of the site to include traffic numbers and movements, traffic routes, access, noise and pollution.

We are especially concerned that the narrow lanes connecting Wickham Skeith with Cotton Village and Dandy Corner are not built for or safe for large construction vehicles.

- Fire/explosion risks relating to battery storage and emergency planning specific to proximity of the development.
- The noise levels relating to transformers and switching gear.
- The potential for glare and reflection affecting nearby residents and wildlife.
- Arrangements for dealing with drainage and flooding as part of the development in Mendlesham has flooded in the past and this is by the main route for Cotton residents to access medical services, local businesses and the A140.
- Details on the impact of the development on food security both locally and nationally as the development is proposed on agricultural land which is graded as “Moderate to Good”.
- The impact on the heritage of the land and bio-diversity net gain. Part of the development in our parish (near Hempnalls Hall) as with Mendlesham was a deer park years ago. Many local deer still frequent the land and may be prevented from doing so by fencing of the development.
- The potential for any compulsory purchase of any local properties.
- Although not an issue generally accepted as relevant in planning applications, local residents are concerned about the effect the development will have on the value of nearby properties, and it would be helpful if this is recognised in the scoping document.

These are our initial comments, and we would wish to remain involved in the next stages of the process.

David Rayner  
Parish Clerk Cotton

T: [REDACTED]  
E: [REDACTED] [@cotton-pc.gov.uk](mailto:[REDACTED]@cotton-pc.gov.uk)

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

Dear The Planning Inspectorate,

**Your ref:**

**Our reference:**

**Proposal:**

DC/24/3892/CON

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

Application by ELMYA RPC UK Grange Road Limited (the Applicant) for an Order granting Development Consent for the White Elm Solar Farm (the Proposed Development)

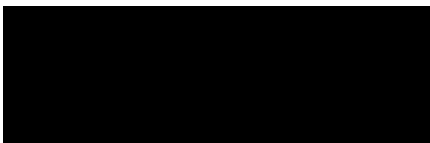
Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

**Site:**

White Elm Solar Farm , Land North Of, Mendlesham, Suffolk.

East Suffolk Council has no objection to the above proposal.

Yours sincerely,



**Ben Woolnough MRTPI | Head of Planning, Building Control and Coastal Management**  
East Suffolk Council

**Date:** 25 November 2024

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LEGAL ADDRESS East Suffolk House, Station Road, Melton, Woodbridge IP12 1RT

POSTAL ADDRESS Riverside, 4 Canning Road, Lowestoft NR33 0EQ



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

**Your ref:** EN0110003  
**Our ref:** White Elm Scoping  
**Date:** 25 November 2024  
**Please ask for:** Bethany Rance  
**Customer Services:** 03330 162 000  
**Direct dial:** [REDACTED]  
**Email:** [REDACTED]@eastsoffolk.gov.uk

By email only: whiteelmsf@planninginspectorate.gov.uk

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 ELMYA RPC UK Grange Road Limited (the Applicant) for an Order granting Development Consent for the White Elm 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**

East Suffolk Council (ESC) welcomes the opportunity to comment on the White Elm Solar Farm Scoping Report dated 29 October 2024. This letter comprises ESC's response under Section 43(1) of the Planning Act 2008.

ESC is a neighbouring authority of the scoping area, not a host authority. ESC considers that the host authorities are best placed to provide comments on detailed technical matters within their geographical jurisdictions. For this reason, ESC has limited comments to the consideration of cumulative impacts.

Cumulative Effects

Cumulative Effects is not considered within the Scoping Report as its own technical chapter, it is instead included in the chapter on Approach to Environmental Impact Assessment. Section 4.26 – Cumulative and In-Combination Effects outlines the project's approach to cumulative impact assessment.

The White Elm Solar Farm project is one of several Nationally Significant Infrastructure Projects (NSIPs) currently proposed, or recently consented but not yet constructed, within Suffolk.

Section 11 of the Scoping Report states 2027 is representative of peak construction and 2029 is

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LEGAL ADDRESS East Suffolk House, Station Road, Melton, Woodbridge IP12 1RT

POSTAL ADDRESS Riverside, 4 Canning Road, Lowestoft NR33 0EQ

chosen as representative of operation. There is potential for both spatial and temporal overlap of the project's construction period with that of other NSIPs and major developments within East Suffolk but also Suffolk more generally, including the Sizewell C new nuclear project, multiple grid reinforcement projects, interconnectors, solar and other large-scale projects.

It is therefore essential that the project is not considered in isolation and that the full cumulative effects of the project with other projects and proposals is adequately and appropriately assessed, mitigated, and where appropriate compensated.

The Scoping Report does not identify or scope in topic areas for the assessment of cumulative effects, identifying only the kinds of effects that could be readily appreciated including traffic generated, air quality effects, and discharges to the water environment. This is not a definitive list, and further consideration will need to be given to this topic area.

The long list of projects is not included within the Scoping Report. Paragraph 4.28 states all relevant project types will be considered, including DCO projects 'registered with the Inspectorate's National Infrastructure Planning Team'. Many of the relevant NSIPs in Suffolk which should be included within the cumulative impact assessment have their own project pages on the Planning Inspectorate's website, though not all do.

ESC emphasises that the impact of the project is not evaluated solely within the boundary limits nor in isolation from the wider district, particularly given the multiple consented and emerging NSIP projects in both East Suffolk and the wider county, and the likely temporal overlap between this project and other NSIPs.

If you would like to discuss any of the comments made in this response further, please do not hesitate to contact ESC using the above contact details.

Yours sincerely,

**Bethany Rance MA MSc MRTPI**  
Senior Planner, Energy Projects  
East Suffolk Council

Todd Brumwell  
The Planning Inspectorate  
[via Planning Inspectorate email address  
[whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)  
]

**Our ref:** XA/2024/100194/01-L01  
**Your ref:** EN0110003  
**Date:** 27 November 2024

Dear Mr Brumwell

**PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING  
(ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (THE EIA  
REGULATIONS) – REGULATIONS 10 AND 11**

**APPLICATION BY ELMYA RPC UK GRANGE ROAD LIMITED (THE APPLICANT)  
FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE WHITE ELM  
SOLAR FARM (THE PROPOSED DEVELOPMENT)**

Thank you for the above consultation which was received on 29 October 2024. We have reviewed the White Elm Solar Farm Environmental Impact Assessment (EIA) Scoping Report, dated October 2024, and have the following comments to make.

On the whole we are somewhat satisfied with the proposed scope and content of the Environmental Statement (ES) for the Proposed Development, as set out in the Scoping Report. However, we disagree with the Applicant's decision to scope out hydrology and flood risk, specifically in relation to flood risk and modelling, surface water and groundwater quality and geomorphology.

We have also provided additional comments on topics within our remit for consideration as the proposals develop, these are included in the appendices.

If you have any queries please do not hesitate to contact me.

Yours sincerely

**Chloe Snowball**  
**Planning Advisor – National Infrastructure Team**

E-mail: [Nlteam@environment-agency.gov.uk](mailto:Nlteam@environment-agency.gov.uk)

Appendix 1: Detailed Comments

Appendix 2: Environmental Permitting – Informatives



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## **Appendix 1**

## **Hydrology and Flood Risk**

Sections 15.58 to 15.64 provides justification for scoping out hydrology and flood risk. This is focused on consideration of the following identified potential impacts:

- a) Effect of construction and operation on groundwater quality;
- b) Effect of construction and operation on watercourses within the Site Boundary;
- c) Effect of construction and operation on Flood Risk on site and downstream;
- d) Effect of construction and operation on existing surface water drainage patterns within the Site Boundary; and
- e) Effect of construction and operation on water quality.

We have considered a, b, c and e, in turn below:

### **Effect on Groundwater Quality**

We disagree with the proposed decision to scope out the effect of construction and operation on groundwater quality. Insufficient information has been provided to rule out the possibility that the Proposed Development could create a contamination pathway into the underlying Principal aquifer at this stage.

The Scoping Report states that impacts on groundwater quality will be assessed in detail in the Flood Risk Assessment (FRA) and Surface Water Drainage Strategy (SWDS) to be submitted as part of the Development Consent Order (DCO) application, and will be considered as part of the outline Construction Environmental Management Plan (oCEMP). The Scoping Report concludes that the impact of the Proposed Development on groundwater quality is considered to be minimal, and that risks associated with surface water runoff which may subsequently reach groundwater supplies will be fully mitigated by the proposed SWDS. This is stated to incorporate measures to ensure no interference with groundwater and to ensure any potentially contaminated fire suppression water is contained and unable to pollute groundwater sources.

#### *Construction Phase*

The Scoping Report states that foundation design for any proposed building structures (including the Battery Energy Storage System (BESS)) and solar photovoltaic (PV) arrays should be reviewed to prevent any structural issues due to differential settlements during loading. No indication of proposed foundation

methodology or depth, including whether piled structures are proposed, is provided in the Scoping Report. We have concerns with the Applicant's suggestion that foundation construction and any hydraulic directional drilling (HDD) are unlikely to be of sufficient depths to impact the underlying Principal aquifer. Without clarification of the anticipated maximum depths for these activities it is important that the risks to groundwater quality from the construction phase should not be discounted.

Section 2.15 states that open trenching of underground cables will primarily be used to connect land parcels, but directional drilling may be used at crossing points with local adopted highways or watercourses. It should be noted that if drilling muds are to be used, while these are generally non-toxic, without knowing their exact composition we cannot be sure that these would not affect groundwater quality. Similarly, where HDD is proposed, controlled waters could be impacted. If risk assessments can be carried out for both the use of drilling muds and HDD, and this is captured in the Construction Environmental Management Plan (CEMP), we would not require the impacts of these activities to be scoped into the ES.

#### *Operation Phase*

Section 9.22 states that the Proposed Development may impact on ground conditions during the enabling, construction and decommissioning phases. Whilst we agree with this statement, we believe that the potential for impact on ground conditions during the operation phase cannot reasonably be discounted at this stage, especially in the event of contaminant release from the substation and/or BESS compound due to spills, leaks or fire/firefighting activities. We have provided additional advice to the Applicant regarding the content of the SWDS in relation to this.

Separate to the above, we wish to provide the following advice to the Applicant to aid with an accurate assessment of the potential impacts posed by the Proposed Development regarding protection of controlled waters.

#### *Underlying Principal Aquifer*

The Scoping Report states that borehole data indicates the site to be situated in a buried glacial valley, with Diamicton potentially over 40m thick. We have undertaken a review of public BGS borehole records from the area immediately surrounding the site, which show the presence of glacial deposits extending to depths of between 19.51m and 29.2m below ground level (m bgl). The records show this to be underlain by Crag Sand to depths of between 50.90 and 67.97m bgl, and subsequently Upper Chalk. Although this is significantly less than the 40m and greater indicated in the

report, this is anticipated to be of sufficient thickness to significantly limit the potential for migration of contaminants into the underlying Principal aquifer.

#### *Unexpected Contamination*

We note that Section 9.27 states that a CEMP would typically be produced which would detail mitigation for protection of site workers from soil/groundwater contamination and Chapter 15 refers to the production of an oCEMP, but it is then stated that an Outline Code of Construction Practice (CoCP) is proposed to be provided alongside the ES. In either case, there should be an outline strategy submitted with the DCO, with a detailed CEMP to be submitted post-consent and this should include a Requirement for a Watching Brief for unexpected contamination, and a Discovery Protocol to establish the investigation and mitigation measures and notifications to be applied under such circumstances. Such documents should also outline the methods to be applied to prevent contamination and cross contamination of soils and surface and groundwater should any sources of pollution be identified.

#### *Site Investigations*

The Scoping Report anticipates that a Phase I Geo-environmental Assessment and Site Reconnaissance (Site Walkover) and depending on the outcome of this, a Phase II Site Investigation including geoenvironmental and geotechnical testing, would be produced. We welcome this approach and would like to further see reference to these investigations being carried out in accordance with BS10175:2011+A2:2017 and Environment Agency guidance document Land Contamination Risk M. Reference should also be made to the production of a Remediation Strategy should contamination posing unacceptable risk be identified.

#### *Geotechnical and Land Contamination Impacts*

While Section 9.38 and Table 9.4 present the geotechnical and ground conditions proposed to be scoped out for further assessment (landslides, soluble bedrock and mineral resources), no clear indication of the geotechnical and land contamination impacts that are to be scoped into the assessment are provided in the report. We request that these be defined unambiguously in future consultations.

#### *BESS*

Given the sensitive hydrogeological setting, we would likely object to a BESS site anywhere in this development unless there is a sealed drainage system in place to contain and manage any fire-fighting effluent or contaminated surface waters generated by a fire at the site, to ensure that there is no discharge of polluted water to ground or surface water bodies. We recommend referring to guidance from the

National Fire Chiefs Council when designing the scheme: [Grid Scale Battery Energy Storage System planning – Guidance for FRS](#).

Table 15.1 states that fire water containment will be considered in the SWDS. This strategy should satisfactorily demonstrate that the risks to controlled waters and surface water have been fully understood and can be addressed through appropriate mitigation measures for all development phases. Any mitigation proposed to contain and manage the impacts of firewater should align with relevant fire safety management plans to ensure that the application of firewater and firefighting agents will always be accompanied with appropriate containment. Such mitigation measures should also be included in the CEMP.

The SWDS should include, but not be limited to:

- A detailed drainage plan which demonstrates, in the event of an emergency, that contaminated firewater can be adequately contained within the site to ensure that there is no discharge of polluted water to ground or surface water bodies.
- There should be an impermeable base or layer beneath the battery unit compound to ensure infiltration beneath the site can be controlled.
- Any system for the storage of contaminated firewater should have sufficient capacity/headroom for the volumes expected in the event of a fire, even during periods of intense rainfall.
- The system for containing firefighting effluent should be automatic with a backup system in place in case of power failure.

#### *Legislation*

The legislation relevant to geology and ground conditions listed in Section 9.5 is generally comprehensive. However, we recommend that [Environment Agency groundwater protection position statements](#) should be added to this list.

#### *Sensitivities of Potential Receptors*

Table 9.1 lists examples of potential receptors with respect to aspects of ground condition including land contamination. Whilst we are pleased to see that the examples provided include reference to aquifers and licensed groundwater abstractions, there is no mention of Source Protection Zones (SPZ) or private water supplies. These receptors should be included in Table 9.1 and assigned sensitivities accordingly.

### *Study Area*

Section 9.6 states that the study area comprises the Proposed Development site and a data search buffer of 50m to 2km. Clarification should be provided on the exact buffer distances used for each parameter in the final ES.

### *Abstraction*

Section 9.6 states that consideration has been given to active groundwater/surface water abstraction. Clarification should be provided as to whether both public and private water abstractions have been considered. Impacts on groundwater resources should consider both public and private water abstractions.

### *Consultation on Land Contamination and Ground Conditions*

The Local Planning Authority (LPA) should be consulted with respect to any sites designated as Contaminated Land which fall within the Study Area, or those identified by the LPA as having been subject to a current or previous potentially contaminative use.

### **Effect on Watercourses**

We disagree with the proposed scope of the ES in relation to impacts on watercourses. From a geomorphology perspective, there is a concern that by scoping out all aspects of hydrology at this stage, the morphology of watercourses is not being considered. Our reasons for this are provided below:

#### *Watercourse Easements*

Section 15.60 justifies the decision to scope this out through the use of 8m easements for ordinary watercourses and 9m easements for Main Rivers. The Biodiversity Net Gain (BNG) watercourse metric indicates that any activity performed within 10m of the bank top is “encroachment”, therefore a 10m buffer/easement from the bank top of a watercourse should be proposed, regardless of the organisation responsible for flood management for that particular watercourse.

Moreover, a 10m buffer would be more effective at protecting the watercourse from sediment and chemical pollution, enable bank stabilisation through vegetation establishment and allow space for commuting by mammals such as otters. Where natural geomorphic processes take place (such as lateral channel migration), consideration should be given to buffers greater than 10m in locations where watercourse migration is identified, if appropriate and where possible.

### *Lack of Consideration for Watercourse Activity*

An additional justification for the above decision is that a SWDS will be produced, which will embed mitigation and prevent water quality deterioration occurring downstream. Such justifications fail to consider the active nature of the watercourses within the draft Order Limits, and any of their features which might be damaged by open cut crossings, new culverts and upgrades to existing culverts. For example, open cut crossing techniques can damage the integrity of the bank, weakening it and potentially leading to increased erosion at that location, depending on how active the water channel is.

Please also see later comments in regard to the need for a Water Framework Directive (WFD) assessment to be completed.

Separate to the above, we would like to provide the following advice to aid with an accurate assessment of impacts to geomorphology as a result of the Proposed Development.

### *Hydrology Assessment*

We would recommend that the Applicant considers extracting the data collected from the already conducted Modular River Physical (MoRPH) surveys and using this data within a hydrology assessment to consider possible impacts to the morphology of watercourses as a result of the Proposed Development.

### *Cumulative Effects*

Consideration should be given to the potential for downstream impacts, and the cumulative effects of the proposed development on other areas should be considered, especially since there is a WFD waterbody downstream of the development.

### *Watercourse Crossings*

The creation of new culverts and upgrading of existing culverts as mentioned in Section 2.7 could cause obstructions to flow pathways and impact on the dispersal of some organisms including otter and certain species of fish. Consideration should be given to replacing existing culverts with open span crossings, with abutments set back from the bank top, rather than upgrading the culverts. Where this is not feasible, arched three-sided culverts should be used to prevent interference with natural channel features. Culverts should also be designed with the natural activity of the channel in mind and be of sufficient size to prevent blocking of flow. Poorly designed culverts with insufficient flow capacity can result in the backing up of flows



and flooding upstream of the crossing point. We would also encourage the opening-up of existing culverts where possible. Our position on this is supported by paragraphs 2.10.87 and 2.10.88 of National Policy Statement EN-3, which state that culverting existing watercourses should be avoided and where culverting for access is unavoidable, applicants should demonstrate that no reasonable alternatives exist and where necessary it will only be in place temporarily for the construction period.

Section 2.15 states that there is a possibility of crossing watercourses via either open trench or trenchless techniques such as directional drilling. Trenchless techniques are preferable, as they are less invasive and avoid disturbance of natural bed features and don't lead to a weakened natural bankside structure. Using HDD to cross watercourses also poses a lower risk to species and habitats. If open cut crossings are necessary, and the watercourses are seasonally dry, the crossing should be made during the dry season and reinstated using bed material reserved from the excavation process.

### **Effect on/from Flood Risk**

In the absence of any modelling held by the Environment Agency for this site, the Applicant will need to undertake additional work to determine the risk posed to the development from watercourses on site. Without this, the flood risk at this site is unknown and we do not consider it appropriate to scope out flood risk at this stage.

#### *Ordinary Watercourses*

Section 15.30 identifies that most of the site is in Flood Zone 1. While this is correct, it should be noted that there are some small ordinary watercourses which cross the site which have no associated Flood Zone mapping due to the small size of their respective catchments. For information, please note that a catchment area of 3km<sup>2</sup> was the de minimis in the generalised 2D modelling used to determine the extent of Flood Zone 2 and 3 where no detailed hydraulic modelling is available. There may be flood risk associated with watercourses which have smaller catchments, but it is not mapped or included within the Flood Map for Planning. The Babergh & Mid Suffolk Level 1 Strategic Flood Risk Assessment (SFRA), page xiii states that whilst these smaller watercourses may not be shown as having flood risk on the flood risk mapping, it does not necessarily mean there is no flood risk and that as part of a site-specific FRA the potential flood risk and extent of flood zones should be determined for these smaller watercourses.



As the Environment Agency do not hold any detailed hydraulic modelling for these watercourses, careful consideration will need to be given to how the design flood level will be determined at proposed crossing locations. Typically, this would be determined by undertaking detailed hydraulic modelling. If a reliance is being placed on existing flood risk products such as the Risk of Flooding from Surface Water (RoFSW) mapping, then clear justification should be provided as to why this is a suitable proxy for representing fluvial flood risk taking into consideration the effects of climate change.

#### *Main Rivers*

A main river borders the south-east boundary of the site and has small areas of Flood Zone 2 and 3 associated with it. The Applicant should note that the Babergh & Mid Suffolk Level 1 SFRA shows that these areas of Flood Zone 3 are designated Flood Zone 3b (functional floodplain).

#### *Siting of BESS*

Although the BESS and substations are proposed to be sited in Flood Zone 1, the RoFSW mapping shows some associated risk to the BESS area. There is an ordinary watercourse which runs near to the BESS, although this does not appear to follow the natural topography. It would be prudent to assess flood risk to the BESS from this ordinary watercourse so that it can be appropriately designed to sit above the 1% (1 in 100) annual exceedance probability (AEP) plus higher central climate change water level with an allowance for freeboard. Typically, this would be achieved by undertaking detailed hydraulic modelling.

In addition, it will be important to ensure that there are no impacts to third parties because of siting the BESS in this location. Any loss of floodplain should be compensated for on a level for level/volume for volume basis, or the applicant should demonstrate that there is no impact on flood risk to third parties.

#### *Siting of Solar Panels*

Solar panels may be proposed in areas of flood risk associated with ordinary watercourses. The solar panels themselves should be designed such that they sit above the 1% (1 in 100) AEP plus higher central climate change scenario with an allowance for freeboard (+300mm). The impact of the solar panel supports on flood risk to third parties should be quantified within the FRA.

Separate to the above, we wish to provide the following advice to the Applicant to aid with an accurate assessment of the potential impacts posed to the Proposed Development by flood risk.

### *Climate Change*

Please bear in mind that the RoFSW modelling and Flood Map for Planning do not consider the effects of climate change. The Flood Map for Planning in this location is based on broadscale modelling using JFLOW 2D modelling software. This modelling was undertaken in 2004 and uses a digital terrain model (DTM) based on Interferometric synthetic-aperture radar. This DTM has a vertical accuracy of around +/- 0.5 metres.

### *FRA*

The guidance on using modelling for FRAs is available online at [Using modelling for flood risk assessments - GOV.UK](#) and provides some useful information which may be of interest.

The guidance on climate change allowances for FRAs is available online at [Flood risk assessments: climate change allowances - GOV.UK](#) and provides steer with regards to climate change uplifts for different epochs. As this development would be classed as essential infrastructure, the higher central climate change allowance should be used as well as an upper estimate as a sensitivity test.

### *Watercourse Crossings*

It is described in Section 15.60 that any proposed crossings which go over existing watercourses will be designed to ensure there is no impact on existing flows. As these are ordinary watercourses, the Lead Local Flood Authority will need to assess and give consent to these structures. Please note the Environment Agency would recommend against culverts for any crossings and would prefer the use of open-span structures such as bridges. Any proposed crossings should be designed so that the soffit level of any bridges sits above the design flood level. The design flood level in this case would be the 1% (1 in 100) AEP plus higher central climate change scenario. Considering a proposed design life of the development of 40 years we would recommend using the 2080's epoch for climate change. Further details on climate change uplifts for watercourse (fluvial) flows can be found online at: [Flood risk assessments: climate change allowances - GOV.UK](#).

## Effects on Water Quality

While we are pleased to read that mitigation measures, watercourse easements and a SWDS will be embedded in the site design, we consider it inappropriate to scope out the effects of construction and operation on water quality because watercourse sensitivity and the magnitude of impacts have not been accurately assessed.

### *Watercourse Sensitivity*

The Scoping Report does not contain the proposed approach/methodology for determining watercourse sensitivity and without this, impacts of the Proposed Development on surface water quality cannot be ruled out. It should not be assumed that watercourses with a WFD designation are more sensitive than those without a WFD designation as WFD designation is a method of monitoring and classifying the ecological health of the water environment and is not an indication of how sensitive it is to change. When determining the sensitivity of a watercourse, it should be ensured that professional judgement, site visits and survey results are used to determine the final sensitivity of a watercourse to water quality impacts.

### *Magnitude of Impacts*

The Applicant has not specified how they propose to determine the magnitude of impact on water quality. Relying on WFD as the sole indicator for assessing the magnitude of the impacts on surface water quality should be avoided. This approach risks misrepresenting impacts from significant pollution or changes in water quality, which can detrimentally effect ecology without impacting the WFD status of the overall waterbody. Moreover, impact detected may vary due to the duration of the changes and the location of the impact in relation to monitoring locations used to classify individual element status. Consideration should therefore be given to the duration, extent and severity of any water quality impacts when determining their magnitude for the construction, operation and decommissioning phases of the project.

Separate to the above, we wish to provide the following advice to the Applicant to aid with an accurate assessment of the potential impacts posed by the Proposed Development in relation to surface water quality.

### *Runoff*

It is stated in Section 15.63 that water quality during the operation phase will be assessed in the FRA and SWDS which will ensure that contaminants in runoff

discharged from the site are kept to a minimum. Care should be taken to ensure silt is prevented from entering watercourses.

Consideration should be given to sowing the grass sward below the solar panels with a locally suitable species-rich grassland with herbs mix. Such species would have roots deeper than grass which would help to restore the soil in former arable fields, improve soil moisture capacity and infiltration rates, and improve water quality downstream.

#### *Pollution Prevention*

It is positive to read that an oCEMP is to be produced which will mitigate and prevent pollution impacts during construction. The oCEMP should consider measures to prevent pollution events resulting from heavy rainfall draining off the solar PV modules and causing increased soil compaction and the formation of ruts and gullies, particularly between installation and prior to vegetation establishment. Ensuring that the oCEMP considers all likely events and mitigation measures for each will reduce the likelihood of causing sediment pollution or a breach to the conditions of any water discharge permits that be granted for the works.

#### *Sewage Disposal*

Section 2.10 states one or more temporary construction compound(s) may be required, in addition to gated compound including a welfare unit with WC (Section 2.20). The Applicant should note that if sewage is to be disposed of via a public sewer, the local water company should be consulted to ensure that adequate sewer capacity is available, and no adverse effects will occur because of the connection. If treatment and discharge at the site is required, the Applicant should consider any potential impacts of this discharge and confirm that a water discharge activity permit will be sought. If road transport to an offside disposal facility is required, then the Applicant should have regard for this within the waste management procedure.

#### **Biodiversity**

In general, we agree with the biodiversity features that have been scoped in for further assessment. However, we would like to provide the Applicant with the following advice to aid with an accurate assessment.

#### *Fish Surveys*

It is positive to read that while Sections 7.45 and 7.46 state that while no records of fish were returned during the desk study and no specific fish surveys are being

undertaken, fish will still be considered in the ES to ensure any potential impacts are taken into account. We wish to make the Applicant aware that there are records of bullhead (*Cottus gobio*) and European eel (*Anguilla anguilla*) as well as coarse fish species in the River Dove. The River Dove is located downstream of the draft Order Limits but there are minor tributaries within the draft Order Limits which are connected to the River Dove. Where fish surveys have not been conducted, it should be assumed that watercourses connected to the River Dove contain populations of bullhead (Annex II of the Habitats Directive) and European eel (NERC S21, Eels Regulations). The CEMP and Decommissioning Environmental Management Plan (DEMP) should detail stringent mitigation to ensure fine sediment/silt during both the construction and decommissioning phases does not impact fish in watercourses within the draft Order Limits, as well as those that are hydrologically connected to those within the site boundary.

#### *Ponds*

Section 7.9 states that several ponds are present within the site. Care must be taken and mitigation measures put in place to prevent negatively impacting these water bodies as part of the construction and decommissioning phases. Surveys to determine the baseline status of these ponds should be undertaken prior to works commencing to assess the risks and impacts to specific species and habitats. Monitoring should also be carried out throughout works, and a survey conducted post-works to determine the full impacts.

There is the potential for these ponds to become enhanced as part of BNG proposed in this Scoping Report. Endangered, native, fish species (such as crucian carp) could have ark sites at these locations or could be enhanced by habitat improvements and/or restocking.

#### *Legislation*

The legislation relevant to biodiversity and nature conservation listed in Section 7.73 should include the Salmon and Freshwater Fisheries Act 1975 and The Eels (England and Wales) Regulations 2009. By not including this legislation, the legal responsibility on the developer pertaining to this fish specific legislation has not been considered. Both pieces of legislation should be listed as relevant in the biodiversity chapter of the ES and submitted as part of the DCO.

#### *BNG*

BNG will become a legal requirement for Nationally Significant Infrastructure Projects (NSIPs) in November 2025. It is encouraging to read that at least 10% BNG will be

delivered, though we would always encourage investigation of opportunities for uplift greater than 10%. A BNG report should be submitted alongside the DCO application. The Statutory Biodiversity Metric should be used, as well as the Watercourse Metric where appropriate.

#### *WFD*

While the Scoping Report does not mention that a WFD assessment will be carried out, we would recommend an assessment is carried out to ensure WFD status is not degraded as a result of the Proposed Development. A WFD assessment would also provide an opportunity to scope in potential improvements to WFD status of waterbodies resulting from BNG delivery.

#### *Ecological Surveys*

It is positive to read that species-specific surveys for otter and water vole will be/have already been carried out to inform the ecological baseline. We would wish to review these survey reports when we are consulted on the Preliminary Environmental Information Report (PEIR).

#### *Invasive Non-Native Species (INNS)*

As a result of water vole being confirmed as present on the site (Section 7.31), we would strongly recommend the consideration of American mink control within any water vole mitigation plans. An INNS management plan should also be put in place.

#### *Fencing*

Section 2.23 states that fencing will be constructed, and it is acknowledged in Section 7.49 that mammal movement may be impacted as a result. However, no mitigation is proposed to lessen this impact. Fencing should be constructed to facilitate the foraging and dispersal of mammals such as otters, through measures such as the inclusion of mammal gates.

#### *Wetland Habitats*

Section 7.49 mentions the potential creation/enhancement of wetland habitat, but lacks detail and is contradictory to Section 2.33 which fails to mention wetland habitats. Consideration should be given to wetland, pond and watercourse enhancements, perhaps as part of BNG delivery. We would recommend that a landscape and enhancement plan is provided in the PEIR so that consultees are given the opportunity to review and provide comments.

### *Opportunities for Mitigation and Enhancement*

We would recommend that consideration is given to the River Waveney Strategic Plan (2024-2029) in order to understand the key catchment issues and local projects that can be supported.

### *Local Nature Recovery Strategy (LNRS)*

Suffolk County Council have been appointed the responsible authority to develop the LNRS in this area. Initial mapping has been completed and a map detailing 'Areas of Particular Importance for Biodiversity' has been produced. Consideration should be given to these maps to inform decisions on where to provide off-site BNG delivery and potential enhancements.

### **Water Resources**

We note that water resources will not be scoped in for further assessment. While there are no activities included in the project description which require a supply of water, we wish to point out that construction phases for projects of this scale often include (but are not limited to) dust suppression; HGV/machinery wheel wash; potable/domestic supply to welfare stations; bentonite clay mixing for HDD; dewatering below ground excavation.

### *Licences*

New consumptive groundwater licences are not available and surface water is restricted to high flows only. New dewatering will need to demonstrate that it is non-consumptive to the local environment to obtain an abstraction licence. Please see Appendix 2 for further information on Environmental Permitting.

Surface water abstraction will be subject to conditions which restrict access to water to periods of high flow. The use of surface water on site may therefore need to consider on site storage to meet demand outside of these periods.

### *Water Stress*

The location of this development is in an area of serious water stress (as identified in our report [Water stressed areas - 2021 classification - GOV.UK](#)). The Applicant should note that water companies are already unable to supply new non-domestic demands in targeted areas of East Anglia and we recommend that the availability of supply to any non-domestic development be explicitly checked with the water company.



### *Water Resources Assessment*

We recommend that a basic water supply strategy be undertaken at the EIA stage to establish water demands and options for sources of supply. This can help to identify potential obstacles early on and may affect the design or construction process.

Establishing what restrictions there are (more information can be found in the [Abstraction licensing strategy](#)) and evaluating the impacts to surface water and groundwater bodies may help to expedite the permitting process later on.

### **Waste**

We support the Applicant's approach to consider waste proportionately within the ES. In line with National Policy Statement EN-1, the Applicant must implement the waste hierarchy and set out the arrangements that are proposed for managing any waste produced, including information on how re-use and recycling will be maximised and an assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation. We're pleased to note that the Applicant intends to consider waste through their CEMP and DEMP.



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## **Appendix 2**

### *Waste Importation*

While there is no mention of waste importation for this project (i.e. landscaping, road creation) the Applicant is advised that should this be included in the application if it is required. These are activities that could require an Environmental Permit under the Environmental Permitting (England and Wales) Regulations 2016 from the Environment Agency, unless a waste exemption applies. The granting of permits is independent of planning, and the Applicant is advised to consider this at an early stage to avoid potential delays in future. Further information about permitting is available on our website at <https://www.gov.uk/topic/environmental-management/environmental-permits>

### *Waste on Site*

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:

- Position statement on the Definition of Waste: Development Industry Code of Practice
- Our website at <https://www.gov.uk/government/organisations/environment-agency>

### *Waste to be Taken Off Site*

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' and that the permitting status of any proposed treatment or disposal activity is 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 <https://www.gov.uk/government/organisations/environment-agency> for more information.

#### *Dewatering*

If dewatering is required, the Applicant may require an abstraction licence 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](#). It may also require a discharge permit if it falls outside of our regulatory position statement for de-watering discharges.

If the Applicant does not meet the exemption and requires a full abstraction licence, they should be aware that some aquifer units may be closed for new consumptive abstractions in this area. More information can be found on our website: [Abstraction licensing strategies \(CAMS process\) - GOV.UK](#) and [Apply for a water abstraction or impounding licence - 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 stage.

Temporary dewatering of wholly or mainly rainwater that has accumulated in an excavation may be exempt from an Environmental Permit for a Water Discharge Activity. More information can be found on our website: [Temporary dewatering from excavations to surface water: RPS 261 - GOV.UK](#). Please note that this does not permit discharge of groundwater from a passive or active dewatering activity, or permit the abstraction of groundwater.

Given the size of the development, it is unlikely that the Regulatory Position Statement on Temporary Dewatering from Excavations to Surface Water can be met and therefore a permit will likely be required to discharge dewatering effluent or surface water run-off generated from area of exposed soil during construction.

#### *Discharges to Surface Water and Groundwater*

The Applicant may need to consider discharge of groundwater, especially if it is contaminated. More information can be found on our website: [Discharges to surface water and groundwater: environmental permits - GOV.UK](#)

#### *Groundwater Activity Permit*

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

#### *Flood Risk Activity Permits (FRAPs)*

If any of the works are likely to require a FRAP under the Environmental Permitting Regulations (EPR), we recommend the applicant consider early on whether they might consider the disapplication of the EPR and matters pertaining to FRAPs be considered as Protective Provisions under the DCO.

The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culvert (16 metres if tidal)
- on or within 16 metres of a sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission.

For further guidance please visit <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits> or contact our National Customer Contact Centre on 03702 422 549.

The Applicant should not assume that a permit will automatically be forthcoming once DCO permission has been granted, and we advise them to consult with us at the earliest opportunity.

There are multiple types of a FRAP which can be found here: [Flood risk activities: environmental permits - GOV.UK](#)

A Bespoke permit has a determination period of 8 weeks however we would recommend the applicant factors in 12 weeks as there may be requirements for additional information and process delays which might affect the process.

#### *Protected Provisions*

Any requests to disapply any permits or consents should be sent to us in writing as soon as possible to allow us sufficient time to consider them (minimum 6 months). Depending on the outcome this will have implications on the content of the DCO.

## Patten, Jack

---

**From:** Mark Woodger - Principal Planning Officer (National Infrastructure)  
[REDACTED]@essex.gov.uk>  
**Sent:** 30 October 2024 14:05  
**To:** White Elm Solar Farm  
**Cc:** Matthew Thomas - Growth and Development Manager  
**Subject:** FW: EN0110003 – White Elm Solar Farm – EIA Scoping Consultation

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Dear PINS Casework Team

The attached has come to me in the NSIP Team here at Essex County Council, and please accept my thanks for the same.

I note the location of the site, this being to the north of Mendlesham, which is some way from the administrative boundary of Essex. Given that the impact on Essex is considered minimal and when looked at against available resources within the Team here at ECC we will not wish to respond to this Scoping submission.

KR

Mark

---

**From:** White Elm Solar Farm <[whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)>  
**Sent:** Wednesday, October 30, 2024 10:59 AM  
**Subject:** EN0110003 – White Elm Solar Farm – EIA Scoping Consultation

CAUTION: This is an external email.

### FAO Head of Planning

Dear Sir/Madam

You are receiving this email in relation to correspondence you received yesterday (29 October 2024) regarding the proposed White Elm Solar Farm Scoping Report.

It has come to our attention that the Scoping Report for White Elm Solar Farm was unable to be published on the 'Find a National Infrastructure Project' website yesterday due to a technical error. This error has been resolved and the Scoping Report has now been published.

<https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN0110003>

As such, the deadline for comments from consultation bodies has been amended by one day. The new deadline is **27 November 2024**.

Kind regards,



The Planning  
Inspectorate

**Neva Johnson** ( Nee-va | [REDACTED] )  
Associate EIA Advisor  
The Planning Inspectorate



@PINSgov



The Planning Inspectorate



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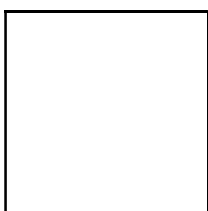
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DPC:76616c646f72



## Patten, Jack

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**From:** Squire, Sandra [REDACTED]@forestrycommission.gov.uk>  
**Sent:** 19 November 2024 12:01  
**To:** White Elm Solar Farm  
**Subject:** White Elm Solar Farm - EN0110003 - EIA Scoping Consultation

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Thank you for consulting the Forestry Commission on this application.

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.

We note there are no ancient woodlands within the proposed order limits, however the scoping document identifies veteran trees and trees with veteran features within the proposed order limits.

### **Veteran Trees**

Veteran trees are irreplaceable habitats.

Section 5.4.32 of EN-1 – The Overarching National Policy Statement for Energy states:

*“Applicants should include measures to mitigate fully the direct and indirect effects of development on ancient woodland, ancient and veteran trees or other irreplaceable habitats during both the construction and operational phases”*

Section 5.4.53 goes on to state:

*“The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of any irreplaceable habitats, including ancient woodland, and ancient and veteran trees unless there are wholly exceptional reasons and a suitable compensation strategy exists”*

We would particularly refer you to further technical information set out in Natural England and Forestry Commission’s [Standing Advice on Ancient Woodland](#) – plus supporting [Assessment Guide](#) and [“Keepers of Time” – Ancient and Native Woodland and Trees Policy in England](#).

The Standing Advice states that proposals should have a buffer zone of **at least** 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree’s canopy if that area is larger than 15 times the tree’s diameter. This will create a minimum root protection area.

### **Mixed Deciduous Woodland**

There are some small areas of mixed deciduous woodland adjacent to the boundary of the proposed order limits.



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".

Fragmentation is one of the greatest threats to lowland mixed deciduous woodland. Woodlands can suffer loss or deterioration from nearby development through 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.

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

*"Existing trees and woodlands should be retained wherever possible. In the EIP (Environmental Improvement Plan), the Government committed to increase the tree canopy and woodland cover to 16.5% of total land area of England by 2050. 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"*

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.

### **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 possibly between the existing woodland blocks on site, to ensure maximum gains to increase habitat connectivity and benefit biodiversity across the whole site, not solely in specific areas or just to be used as screening.

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:

- Biosecurity of all planting stock needs to be considered.
- Woodlands need to be climate, pest and disease resilient.

- Maximise the ecosystem services benefits of all new woodland wherever possible (flood reduction)
- Planting contributes to a 'resilient treescape' by maximising connectivity across the landscape.
- Plans are in place to ensure long term management and maintenance of woodland.

We hope these comments have been useful to you. If you require any further information, please do not hesitate to contact me.

Best wishes

Sandra

*Sandra Squire*

Local Partnership Advisor  
East & East Midlands

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



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HSE email: [NSIP.applications@hse.gov.uk](mailto:NSIP.applications@hse.gov.uk)

Email: [whiteelms@planninginspectorate.gov.uk](mailto:whiteelms@planninginspectorate.gov.uk)

Dear Ms Neva Johnson

Date: 15 November 2024

**PROPOSED WHITE ELM SOLAR FARM (the project)  
PROPOSAL BY ELMYA RPC UK GRANGE ROAD LIMITED (the applicant)  
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as  
amended) REGULATIONS 10 and 11**

Thank you for your letter of 29 October 2024 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 White Elm Solar Farm project components as specified in the *Environmental Impact Assessment Scoping Request* document, *Figure 1.1*, drawing title '*Draft Order limits*', does appear to cross the Consultation Zone of the Major Accident Hazard (MAH) pipeline, which is associated with the following operator:

- HSE Ref #7448, Transco Ref 1707, Operator National Grid Gas Plc, Pipeline 5 Feeder Diss Comp Tee /Stowmarket.

The Applicant should make the necessary approaches to the relevant pipeline operator. There are three particular reasons for this:

- i) the pipeline operator may have a legal interest in developments in the vicinity of the pipeline. This may restrict developments within a certain proximity of the pipeline.
- ii) the standards to which the pipeline is designed and operated may restrict major traffic routes within a certain proximity of the pipeline. Consequently, there may be a need for the operator to modify the pipeline or its operation, if the development proceeds.
- iii) to establish the necessary measures required to alter/upgrade the pipeline to appropriate standards.

HSE's Land Use Planning advice would be dependent on the location of areas where people may be present. When we are consulted by the Applicant with further information under Section 42 of the Planning Act 2008, we can provide full advice.

### Would Hazardous Substances Consent be needed?

It is not clear whether the Applicant has considered the hazard classification of any chemicals that are proposed to be present at the development. 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 the Schedule 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 on NSIPs is summarised in the following Advice Note 11 Annex on the Planning Inspectorate's website - [Annex G – The Health and Safety Executive](#). This document includes consideration of risk assessments on page 3.

### Explosives sites

HSE has no comment to make as there are no licensed 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](mailto:nsip.applications@hse.gov.uk) . We are currently unable to accept hard copies, as our offices have limited access.

Yours sincerely



Cathy Williams  
CEMHD4 NSIP Consultation Team



Historic England

Mr Todd Brumwell

[REDACTED]

[REDACTED]

The Planning Inspectorate  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

Direct Dial: [REDACTED]

Our ref: PL00797292

26 November 2024

Dear Mr Brumwell

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

**Application by ELMYA RPC UK Grange Road Limited (the Applicant) for an  
Order granting Development Consent for the White Elm Solar Farm (the  
Proposed Development)**

Thank you for your email of 29<sup>th</sup> October 2024 notifying Historic England of the Environmental Impact Assessment (EIA) Scoping Opinion for the proposed works associated with the White Elm Solar Farm situated west of the A140 between Mendlesham and Wickham Skeith in Suffolk.

The historic environment is a finite and non-renewable environmental resource which includes designated heritage assets, non-designated archaeology and built heritage, historic landscapes and unidentified sites of historic and / or archaeological interest. It is a rich and diverse part of England's cultural heritage and makes a valuable contribution to our cultural, social and economic life. A scoping report should establish if the proposed development has the potential for effects on cultural heritage. This should be dealt with in a specific Archaeology and Built Heritage chapter within an Environmental Statement. We advise that all supporting technical information (desk-based assessments, evaluation and post-excavation reports etc.) are included as appendices. Where relevant, the cultural heritage should be cross-referenced to other chapters or technical appendices; for example noise, light, traffic and landscape.



Historic England, Brooklands, 24 Brooklands Avenue, Cambridge CB2 8BU  
Telephone 01223 58 2749 [HistoricEngland.org.uk](http://HistoricEngland.org.uk)

Please note that Historic England operates an access to information policy.

Correspondence or information which you send us may therefore become publicly available.



The EIA should consider the impact upon both designated and non-designated heritage assets. This should include the impact upon the setting of the heritage assets within the surrounding area. Archaeological evidence within the surrounding vicinity should be assessed and further consultation and advice should be sought from the Development Management Archaeologists and Historic Environment Record at Norfolk County Council.

There are no designated assets within the boundaries of the proposed development. The designated assets which fall within the remit of Historic England to advise are the grade I listed parish church of St George at Thwaite, (NHLE 1032261), Mendlesham conservation area including the grade I\* listed parish church of St Mary (NHLE 1032241) and the grade I listed parish church of St Andrew at Wickham Skeith (NHLE 1352521)

The development has the potential to have an impact on these heritage assets, either through visual impact on increased noise or, in the case of illuminated roundabouts, lighting. Other grade II listed buildings are in the vicinity and there may be other designated and non-designated heritage assets which are affected by the development. The document should identify these and assess the impact of the proposals upon their significance.

The assessment of the impact upon setting should include views from and towards any nearby heritage assets. Photomontages, wireframe models and/or similar techniques can be used to illustrate and assess the potential visual impact. The assessment of setting should not be solely be restricted to visual impact and should also consider the impact from other environmental factors such as noise, traffic and lighting, where relevant. Cumulative impact upon the setting of the designated and non-designated heritage assets should also be considered.

The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area. The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits and can also lead to subsidence of buildings and monuments.

The assessment should be carried out in accordance with established policy and guidance, including the National Planning Policy Framework. Historic England also produced further guidance on setting entitled The Setting of Heritage Assets. Our guidance provides a thorough discussion of setting and methods for considering the impact of development on setting, such as the use of matrices.

Whilst standardised EIA matrices are useful tools, we consider the analysis of setting (and the impact upon it) as a matter of qualitative and expert judgement which cannot be achieved solely by use of systematic matrices or scoring systems. Historic England therefore recommends that these should be seen primarily as material supporting a clearly expressed and non-technical narrative argument within the



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cultural heritage chapter. The EIA should use the ideas of benefit, harm and loss (as described in NPPF) to set out 'what matters and why' in terms of the heritage assets' significance and setting, together with the effects of the development upon them.

We would strongly recommend that Babergh District Council and the archaeological staff at Suffolk County Council are consulted during the development of the assessment. They are best placed to advise on: local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impact on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets. We would also defer to the Council on grade II listed buildings which are not within the remit of Historic England to advise.

In this instance we have taken the opportunity to visit the site and inspect the designated heritage assets which fall within the remit of Historic England to advise. While we would be happy to advise further as the assessment develops, at this stage we consider that distance, other buildings, mature trees and the extent and nature of the proposed development means it is unlikely there would be a harmful effect on their significance.

Please do contact us if you would like to further advice.

Yours sincerely,

David Eve  
Inspector of Historic Buildings and Areas  
[REDACTED]@HistoricEngland.org.uk



Historic England, Brooklands, 24 Brooklands Avenue, Cambridge CB2 8BU  
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**From:** [Amy Johnson](#)  
**To:** [White Elm Solar Farm](#)  
**Subject:** EN0110003 – White Elm Solar Farm – EIA Scoping and Consultation and Regulation 11 Notification  
**Date:** 28 November 2024 20:44:40  
**Attachments:** [White Elm Solar Farm Scoping Report Comments from Meeting 06.11.24.docx](#)

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Good evening,

I have received a 'bounce back' message due to 'inbox full' for my email sent on 26<sup>th</sup> November 2024.

Can you please confirm receipt.

Kind regards,  
Amy

Dear Sir/Madam,

Please find attached the response from Mendlesham Parish Council to the matter of EN0110003 – White Elm Solar Farm – EIA Scoping and Consultation and Regulation 11 Notification

Kind regards,  
Amy

**Amy Johnson**

Parish Clerk - Mendlesham Parish Council

[REDACTED]

✉ [REDACTED]

<https://www.mendlesham-pc.gov.uk>

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### **EN0110003 – White Elm Solar Farm – EIA Scoping and Consultation and Regulation 11 Notification**

We have been able to look at the documents on the website but would ask that the following issues are covered in detail, please.

- Fire/explosion risks relating to battery storage and emergency planning specific to Mendlesham Parish. In particular referencing nearby dwellings and buildings in the proximity of the development
- Arrangements for dealing with drainage and flooding as part of the development in Mendlesham has flooded in the past.
- The impact on residents and infrastructure of all issues relating to the construction, development, operation and future decommissioning of the site in Mendlesham to include traffic numbers and movements, traffic routes, access and egress, noise and pollution.
- Proposed hours of working
- Details on the impact of the development on food security both locally and nationally as the development is proposed on agricultural land which is graded as “Moderate to Good”. Our approved Neighbourhood Plan refers to us maintaining as much agricultural land as possible for agricultural use.
- The impact on the heritage of the land and bio-diversity net gain. Part of the development in our parish was a deer park years ago and is referred to in documents in the approved Mendlesham Neighbourhood Plan. Many local deer still frequent the land and may be prevented from doing so by fencing of the development.
- The potential for any compulsory purchase of any local properties.
- The size of exclusion zones around properties neighbouring the development. It is noted that the inclusion zone around the existing landowner’s farm appears to be much larger than the zone around other properties
- The potential for glare and reflection affecting nearby residents and wildlife.
- Although not an issue generally accepted as relevant in planning applications, local residents are concerned about the effect the development will have on the value of nearby properties and it would be helpful if this is recognised in the scoping document.



November 2024

The Planning Inspectorate by email

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)**  
**REGULATIONS, 2017: WHITE ELM SOLAR FARM SCOPING REPORT**

This document sets out the response of Mid Suffolk District Council (MSDC) to the Scoping Report submitted on 29<sup>th</sup> October 2024 by Elmya RPC UK Grange Road Limited in respect of the proposed White Elm Solar Farm NSIP.

The comments have been set out using the headings and numbering contained within the report. In commenting upon the content of the Scoping Report MSDC recognise the early stage of the project and the limitations of the report in respect of the indicative alignment.

These comments are therefore not exhaustive and MSDC reserve the right to provide additional comments later in the engagement process.

It should also be noted any comments made here do not infer agreement with or acceptance of any or all of the supporting documents that Elmya refers to in the Scoping Report.

### **Introduction**

Mid Suffolk District Council (MSDC) is part of the Suffolk Climate Change Partnership (SCCP) and declared a climate emergency in 2019. This proposal is one of many renewable and low carbon energy development projects coming forward in the District, providing a source of energy that is less harmful than fossil fuels and contributing to the UK's clean power and net zero objectives. There are clearly wider environmental and social benefits of providing energy security but there are also challenges when considering these types of developments, including impacts on communities, landscapes and agricultural land.

### **Transboundary effects**

MSDC accept the conclusion that the potential for trans boundary effects is low.

### **Main Alternatives Considered**

MSDC welcome the intention to consider alternatives within the ES and expect such consideration to extend to the point of connection and how this might deliver both the project



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objectives and the best outcome for strategic network design, enabling future development and the council's objectives for growth and decarbonisation.

### **Project description**

The description of the proposal is generally acceptable. However, it is noted that the proposed point of connection for the scheme is not currently constructed and available. The location of the 'Elmya Grange substation' may alter the proposed order limits and would be likely to alter the effects of the development, especially in terms of cable route works and access.

MSDC have concerns regarding the proposed new 400kv substation on the existing 4YM Norwich to Bramford circuit, as this is likely to attract significant additional connection projects in the surrounding area that is already affected by the newly constructed Yaxley 400kv substation.

The uncertainty regarding the point of connection for this project is a concern.

### **EIA approach and method**

MSDC have concerns that the recent proliferation of large-scale projects within the region and the expectation of further delivery of sites, including NSIPs and development sites identified in the BMSDC Joint Local Plan, have the potential to have significant effects when considered together and cumulatively with this proposal. Areas of concern include, but are not limited to, the timing of construction, impacts on highway networks, impacts on commercial operations, amenity, skills, and tourism.

MSDC welcome discussions to agree an appropriate study area for the consideration of cumulative effects and the identification of a long list of other reasonably foreseeable development, not just consented development.

### **Landscape and Visual**

Please refer to full comments from the MSDC landscape adviser (Essex Place Services) at appendix 1.

### **Nature Conservation and Biodiversity**

Please refer to full comments from the MSDC ecology adviser (Essex Place Services) at appendix 1.

### **Cultural Heritage**

Please refer to full comments from the MSDC heritage adviser (Essex Place Services) at appendix 1.

BMSDC also recognise the comments submitted by Suffolk County Council regarding archaeology.

### **Ground Conditions**



Please refer to full comments from the MSDC Environmental Health officer at appendix 1.

MSDC also refer to any comments submitted by the Environment Agency, Suffolk County Council as Lead Local Flood Authority, and the Internal Drainage Board on this topic.

### **Socio-economics**

Please refer to full comments from the MSDC Corporate Manager for Economic Development at appendix 1.

### **Transport and Access**

Much of the scoping boundary area is characterised by minor roads and lanes that are not suitable for large volumes of construction traffic. There is also an extensive and highly-valued public rights of way network across the draft order limits.

The ES should include adequate information to enable assessment of the effects of the development on the local area in respect of traffic and transport issues.

Please refer to full comments from the MSDC Communities officer at appendix 1.

MSDC defer to the advice of the relevant local highway authorities.

### **Noise and Vibration**

Please refer to full comments from the MSDC Environmental Health officer at appendix 1.

### **Air Quality and Greenhouse gases**

Please refer to full comments from the MSDC Environmental Health officer at appendix 1.

### **Agriculture**

The ES should include details of soil management throughout the construction, operation and decommissioning of the development as well as mitigation for reinstatement of the land.

### **Other Environmental Topic**

MSDC are concerned at the lack of information in the scoping report relating to effects on the environment and public health and safety arising from the development, in particular the battery energy storage system element.

MSDC expect to see information relating to emergency incidents such as thermal runaway and the potential for hazardous substances.

In accordance with policy, the assessment flood risk effects must take account of all sources of flooding including an allowance for climate change on all events. There is no mention in the



scoping report of potential effects from reservoir flooding and there appears to be a reservoir adjacent to the boundary of the site.

Please refer to full comments from the MSDC Environmental Health officer at appendix 1.

## **APPENDICIES**

1. Comments from technical officers

Kind regards,

Philip Isbell  
Acting Director of Planning  
Babergh and Mid Suffolk District Councils



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## **Economic Development**

### **White Elm Scoping Response - Economic Development, Tourism and Skills**

Babergh & Mid Suffolk District Councils (BMSDC) Economic Development, Tourism and Skills response aligns with that of Suffolk County Council, that we would expect that White Elm's socio-economic assessment is strengthened by applying SCC's Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance. Principally introducing phase-specific workforce and supply chain insights, applying evidence-led probability scenarios, and addressing any indirect and cumulative impacts.

Adopting SCC's Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance will enable White Elm to create a comprehensive, responsive assessment, BMSDC alongside SCC expects White Elm's assessment to focus on the following elements:

1. Detailed Baseline and data review of Existing Socio-Economic Environment
2. Strategy and Policy Review
3. Comprehensive Supply Chain Assessment
4. Education and Training Infrastructure
5. Cumulative assessment of impact
6. Explicit cross-referencing of impact between topic areas, particularly, transport, socio-economics and agriculture

**Based on the Supplementary Guidance, BMSDC comments on the White Elm Environmental Impact Assessment Scoping Request are as follows:**

#### **1. Determining the anticipated geography from which the workforce will be drawn.**

Babergh & Mid Suffolk Council (BMSDC) appreciates White Elm's proposal for defining socio-economic impact areas, which cover local, regional, and national contexts. While the primary, secondary, and comparator zones provide a structured approach to understanding socio-economic impacts. For example, White Elm's identification of Mid Suffolk District as the Primary Impact Zone is appropriate, given the project's location and the anticipated concentration of direct effects within this area. However, it is important that a more detailed, phase-specific baseline analysis is conducted including substantial additional detail on workforce planning. Our recommendations to enhance the effectiveness of the assessment framework (and supply chain integration) are:

1. Assess the workforce inputs by phase, skills and duration.
2. Using the workforce assessment, define an economic study area for workforce, considering the following:
  - a. The propensity for travel, availability of public transport and the local road network, preferred method of travel to work, correlation to Traffic and Transport methodology.

*Please refer to Suffolk County Councils Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance [www.suffolk.gov.uk/asset-library/energy-and-climate-adaptive-infrastructure-policy.pdf](http://www.suffolk.gov.uk/asset-library/energy-and-climate-adaptive-infrastructure-policy.pdf)*

#### **2. Identifying skills and labour force effects during project phases (construction, operation, decommissioning)**

BMSDC acknowledges White Elm's identification of key socio-economic effects across construction, operational, and decommissioning phases. While supportive of this focus, we provide the following comments and recommendations to enhance the assessment's robustness and to maximize the socio-economic benefits for the Suffolk community. These steps will help understand the potential of local workforce participation, providing SCC with data to address skills gaps and labour needs more strategically.

1. Identify the size and details of home-based employment opportunity using the newly assessed geography and workforce phases from point 1 above.
2. Use our recommended low, medium high probability framework to assess home-based employment opportunity.

### **3. Identify Supply Chain effects during construction, operation and decommissioning**

A comprehensive, scenario-based approach to supply chain impacts is necessary to assess local businesses' ability to meet the project's requirements and compete for contracts. This approach will support Suffolk's economic growth by promoting local business participation and minimizing supply chain displacement risks. BMSDC expects White Elm to:

1. Apply a scenario-based supply chain framework, using probability scenarios to evidence the supply chain opportunity across all elements of the project, factoring in the cumulative impacts with other projects.
2. Identify phase-specific supply chain needs, produce an assessment that; identifies the distinct supply chain opportunities by work phase, and identifies local businesses with the can deliver the service or goods sought, and the likelihood of these businesses being able to take up an opportunity to compete for this work.
3. Review Social Value opportunities linked to the wider supply chain in line with the Councils adopted Social Value Policy [www.babergh.gov.uk/documents/d/asset-library-54706/202404-social-value-policy-fdv1-1](http://www.babergh.gov.uk/documents/d/asset-library-54706/202404-social-value-policy-fdv1-1)

### **4. Evidenced judgements of socio-economic impact**

1. jobs and training opportunities
2. low-carbon industry development (local, regional, national)
3. the provision of additional local services and improvements to local infrastructure
4. any indirect beneficial impacts for the region hosting the infrastructure.
5. effects (positive and negative) on tourism and other users of the area impacted.
6. the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure.
7. cumulative effects if development consent were to be granted for a number of projects within a region and these were developed within a similar timeframe.

#### **Additional Commentary:**

##### **Regional Skills Coordination Function**

BMSDC recommends White Elm work closely with SCC's Regional Skills Coordination Function and Local Authorities' skills and economic functions to ensure data is relevant and up to date. This collaboration will support a more precise socio-economic analysis aligned with Suffolk's unique conditions.

## **Data**

BMSDC are concerned with the proposed data sets for identifying the baseline and subsequent sensitivity assessment and magnitude of effect on the local economy. The proposed data sets tend to rely on annualised data that can be misleading and doesn't accurately reflect the potential local impacts of this proposed development.

## **Impacts to be scoped in or out**

BMSDC supports the inclusion of employment and economic contribution impacts for construction, operation, and decommissioning phases, given their relevance to Suffolk's socio-economic objectives.

White Elm's proposal to scope out housing supply impacts, based on the assumption that construction and decommissioning workers will use Serviced and Non-Serviced Accommodation instead of local residential dwellings, raises concerns. BMSDC recommends further consideration of potential housing impacts for the following reasons:

1. Significant shortage of existing serviced & non-serviced tourism accommodation within the Mid Suffolk area leaves a shortage of stock for workers to access.
2. This accommodation is intended for tourism use, rather than contractors, so any substantial block booking of this type of accommodation will have negative effect on the wider tourism industry which has not been considered.
3. Indirect Pressure on Local Housing: Although the project intends to utilise serviced and non-serviced accommodation, indirect impacts could still arise. For example, higher demand for temporary accommodations might drive up prices, indirectly influencing affordability for residents or other local projects requiring similar accommodations.
4. Potential Influx During Peak Phases: During peak construction or decommissioning phases, demand for serviced accommodation may increase, particularly if other NSIPs are underway in Suffolk. This could exacerbate pressure on the local housing market, especially in nearby towns and villages with limited accommodation options.

To ensure a robust assessment, BMSDC recommends retaining housing supply impacts within the scope but focusing on indirect and cumulative impacts. This would align with our commitment to monitoring and mitigating potential displacement effects on local residents and ensuring affordable housing availability remains unaffected.

## **Agriculture**

No reference to the loss of agriculture/crop production through removal of this land from productive use, whilst there is some reference to "Agricultural uses will be capable of being continued, however, and the reduction in agricultural use (a land-use consideration) will be assessed". The EIA needs to be explicit as to whether the land in question is being removed from agriculture production or not, and if not, how this will be managed.

The following are scoped out at this stage, and it is BMSDC's belief that this should be reviewed:

- short term disruption to farms and farming activities during the construction phase.

There is no reference to severance of farms being scoped in or out. No reference to long term disruption to farms and farming activities during the operation phase and no reference to any



impacts being scoped in or out during decommissioning phase – these omissions need to be resolved during the EIA process.

### **Wider Omissions from the EIA Scoping Request**

There is no reference to Community Benefit and Project Legacy and no reference on potential impact to tourism that also need to be resolved during the EIA.

There is also no reference to the impact of restricted access to employment/services etc during construction period i.e. Impact of diversions/road closures on access to local services, education, employment, health and care which will need to be considered.

### **Place Services Landscape**

Thank you for consulting Place Services on the White Elm Solar Farm, Nationally Significant Infrastructure Project, Environmental Impact Assessment Scoping Report in relation to landscape and visual issues.

### **Proposals**

The main proposal is for the construction, operation, maintenance and decommissioning of a ground mounted solar park with associated development. The maximum height of the arrays is expected to be up to 3.5m. The arrays would be set within perimeter fencing up to 1.8m in height. The battery compound & substation compound would be secured by a 3m high gated palisade fence. Pole mounted CCTV at the perimeter of the site will be mounted on poles of around 4m height located within the perimeter fence. Opportunities for landscaping, biodiversity enhancements and habitat management will be identified.

Underground cables will connect the various land parcels, predominantly involving an open trench, although consideration is still being given to whether some sections will need to be above ground.

Substations & connections infrastructure required for the development include the applicant's Substation Compound (indicative footprint of 200m by 100m) and electrical cabling connecting the applicant's substation compound to the National Grid substation compound. The substation will not normally be lit.

### **Site description**

The Scoping Report identifies that the current site extends to over 272 hectares (674 acres), situated west of the A140, close to the settlement of Mendlesham to the south. The site is split into several land parcels which are intersected by local roads. The key characteristics of the site are of very gently undulating arable farmland with field boundary features of ditches, hedgerows and deciduous trees.

**Review of submitted information** Landscape and Visual Impact Assessment Place Services is a traded service of Essex County Council

Whilst the Landscape and Visual Assessment (LVIA) broadly follows the principles set out on the third edition of "Guidelines for Landscape and Visual Impact Assessment" (GLVIA3) we have some concerns with the proposed approach that should be reviewed to inform the assessment at the Provisional Environment Impact Review stage.

## Planning Policy Context

We are broadly in agreement with the planning policy context in relation to landscape and visual issues.

## Overview of Approach and Methodology

Para 6.5 states that the main objectives of the LVIA include *'To identify, evaluate and describe the current landscape character of the site and its surroundings and also any notable individual or groups of landscape features within the site...'* The landscape assessment should include for assessing landscape value in line with Box 5.1 on page 84 of GLVIA3 and expanded in TGN 02-21 *'Assessing landscape value outside national designations'*.

## Significance criteria

Table 3.3 *'Levels of Effect Degrees of Significance'* in the Scoping Report, identifies when an environmental effect is assessed as having a major or moderate degree of significance it is deemed to be "significant". This differs from the approach in the proposed LVIA. Para 4.18 states *'where discipline-specific methodology has been applied that differs from the generic criteria above, this will be clearly explained within the given technical chapter...'* This has not been done in the LVIA.

Landscape character Receptors/elements to be scoped out of the assessment.

It is indicated in the LVIA that effects on landscape character areas outside of the study area of 3Km are judged as unlikely to have potential significant effects. We would recommend that this study area needs extending beyond 3 KM to the north and north-east to include the areas that were previously Special Landscape Areas and would likely still be evaluated as Valued Landscape at a district level.

## Landscape Character Baseline

There is a downplaying of the role of the agricultural character as a key element of landscape, in the proposed assessment approach (See Para 6.16), as opposed to the individual features of the site such as the trees and hedgerows. The LVIA identifies that one of the key characteristics of the local character type is *'A working landscape on which suburbanisation is only beginning to make an impact compared with other parts of the country.'* For clarity, this means a working agricultural landscape. More consideration of value needs to be attributed to the agricultural landscape not just the features within it.

*'Redundant WWII airfields'* are flagged as one of the key relevant landscape characteristics of LCT10: Plateau Claylands but these do not appear to be relevant within the study area so should be omitted from consideration in the assessment. Place Services is a traded service of Essex County Council

The landscape assessment should include for assessing landscape value in line with Box 5.1 on page 84 of GLVIA3 and expanded in Landscape Institute, TGN 02-21 *'Assessing landscape value outside national designations'*, not just for the site but the wider study area. The criteria for value should not be based solely on landscape designation at a local level as this is no longer promoted at a national level in English planning policy nor endorsed in the Landscape Institutes' approach to valued landscape assessment (See TGN 02-21 Para 2.2.5).

Para 6.18. needs to be strengthened to recognise that most existing features of value (trees, hedgerows) would be retained and enhanced within a proposed layout, rather than could be, and

that opportunities include enhancement and compensation for overall landscape character impact not just impacts on landscape features.

#### Visual Impact

Receptors/elements to be scoped out of the assessment.

A study area for the assessment of 3 km, identified in Para 6.39 of the assessment, seems appropriate, generally. However, it is identified at Para 6.37 that the Screened Zone of Theoretical Visibility (SZTV) has been run at an average height of 3 m across the site, although some elements of the project are identified as greater than this (It is stated in the report that the maximum height of the arrays is expected to be up to 3.5m, and CCTV at the perimeter of the site will be mounted on poles of around 4m height).

In relation to connections between the various land parcels, consideration is still being given to whether some sections will need to be above ground. Further detail will be required as to the likely land take for trenching, why open trenching is proposed, and the potential negative impact on landscape features as a result, as well as the approach to soil handling and storage. Full details of any above ground cabling will be required, and the reasons why this approach is proposed as opposed to further undergrounding, and the likely negative impacts as a result.

#### Assessment Viewpoints

Fifteen viewpoints (VPs) are proposed to cover the area of the development which we judge is far too few for a development of this scale spatially and not representative of the scale and range of the potential negative effects on the many receptors, both landscape and visual. In particular:

- there is only one viewpoint close to or from Mendlesham (VP9). We propose that there should be more VPs close to the town or from its setting, in order to demonstrate the nature and severity of any effects. These could include from the settings of appropriate listed buildings and/or other heritage assets and PRoW, as relevant.
- Viewpoints are needed from the footpath network to the southwest of the project area.
- There is only one viewpoint (VP1) from the PRoW (Footpath 16?) that runs north to south through the middle of the site. At least one other is needed along this route.

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- Viewpoints are needed along the National Cycle Route to the east of the project but within the study area.
- A VP is needed to the north-west of the project area, between VPs 13 and 14, on the PRoW network.
- A VP is needed on the footpath network to the south-west of the project area and VP13, and to the south/south-west of VP11.
- Additional baseline photographs, from appropriate viewpoints outside the 3Km boundary, but within areas of potentially high theoretical visibility in the SZTV (see Figure 6.4), are needed to demonstrate that the project is unlikely to result in any visual effects greater than minor from these areas. There are several areas of potential theoretical visibility both within and on the edge of the 3Km study area that are not currently proposed for illustration using a viewpoint photograph and visualisations.

- There appears to be at most one viewpoint inside the old Suffolk Landscape Area to the north. Much if not all of this would likely still be considered Valued Landscape at the Local level, as judged by current Landscape Institute standards, therefore more VPs should be provided.
- Detailed plans and visualisations will be required to show proposed mitigation and potential reduced effects over time for any proposed substations, alongside the cumulative effects of this infrastructure alongside the National Grid substation compound.
- We suggest that the range of viewpoints is extended substantially in order to demonstrate that potential visual effects are not significant.

*'Suffolk County Council Public Rights of Way and Solar Farms - Position Statement' from 2022, identifies that 'All PROW must be protected on their legally recorded alignment both within and around the site, and must be accommodated within wide green corridors. Any new planting proposed as screening should be of mixed native species and a minimum of 10m from the edge of the PROW..' and 'For fencing, the use of open mesh is preferable...' And 'The effect of glint and glare on users of PROW must be properly considered...' And 'Potential loss of amenity value to users of the PROW network generally must be considered...'*

#### Supporting Visual Material

Para 6.43 indicates only five visualisations would be provided which we judge is too few to represent the range of effects and to demonstrate effectiveness of mitigation for a project of this size. The paragraph does not indicate what type of visualisation would be provided. We would recommend Type 3 visualisations be provided for most of the visualisations, to demonstrate the effectiveness or not of the proposed mitigation. Type 1 baseline visualisations would be insufficient for such a large development on a greenfield site as these rely solely on the baseline photographs with the extent of development shown and key landmarks marked. It is not possible to make appropriate judgement of the assessed impacts, particularly significant ones, without key viewpoint assessments being represented (See *The Visual Representation of Development Proposals Technical Guidance Note (TGN) 06/19 (Landscape Institute, September 2019)*). Place Services is a traded service of Essex County Council

#### Mitigation and Enhancement

Mitigation should also include for compensation for the likely significant residual effects on the landscape character at the local level, the specific nature of which cannot be effectively mitigated i.e. the effective loss of large hectareage of agricultural land. This could include for large areas of managed meadowland or similar that could also contribute to Biodiversity Net Gain. This would be needed alongside visual mitigation along field boundaries, creation of small copses and similar in order to reduce visual effects, especially from residential property and the PROW network. Detailed masterplan drawings are needed as part of the PEIR and large-scale planting plans as part of a future LEMP (Landscape and Ecological Management Plan).

#### Likely Significant Effects

Para 6.32. Whilst it is identified that long term effects will be likely significant at completion of the project, it appears disingenuous to describe a project of this scale and construction as 'temporary' when it is planned to last 40 years. Full details of the decommissioning and restoration should be

provided and secured by some form of agreement in order for the long term effects of the project to be fully assessed.

We trust the above advice and recommendations are helpful. If you have any queries regarding the matters raised above, please let me know.

### **Environmental Protection**

Thank you for consulting us about the scoping document, and also for sight of the SCC comments. Our comments are as follows:

In terms of operational noise, we are broadly happy with the terms of the proposed noise assessment. We note that Table 12.2 does not include daytime internal noise guideline values for good resting conditions as given within BS8233 as well as good internal values for sleeping. These should be included and referred to in the noise assessment.

Paragraph 12.4 states that a formal construction noise assessment is not proposed. Instead, a construction environmental management plan will be prepared which will include details of the Best Practicable Means (BPM) proposed. We are concerned about this and would suggest that noise from the construction period is likely to be as intrusive as, if not more so than, operational noise, and therefore should be included, particularly if the construction phase is likely to be lengthy. Sections 12.9 and 12.10 state that a week-long noise survey is planned to monitor existing noise levels, and we would suggest this should also form the basis for the construction plan in terms of determining the level of attenuation needed, with reference to BS5228.

Section 12.37 of the scoping request document *“assumes that the solar panel frame supports can be installed using a push-pull piling rig such that impact driven piles are not necessary”*. The document also assumes daytime construction working only. These assumptions should be confirmed before construction noise can be scoped out.

Section 12.37 states that it is not proposed to assess the effect of construction traffic. We would like to see this assessed as construction traffic noise may be quite significant, given the rural roads and quieter noise climate. No information is given in the document about the potential length of construction period and the likely number of vehicular movements.

12.52 states that cumulative effects will be assessed. Whilst we welcome this, we are unsure that the proposed 1km study area will be sufficient and would recommend a wider area.

We understand that a glint and glare assessment will be undertaken and will form a technical appendix to the ES. We further understand that technical assessments including residential visual amenity assessments will form technical chapters within the ES. We would recommend that the visual amenity assessment should include lighting, if this is proposed.

### **Land Contamination**

Many thanks for your request for comments in relation to the above NSIP application. I can confirm that we have no knowing contamination issues at the site and that I am happy with the elements outlined to be scoped on in section 9.38 of the Scoping Report.

### **Air Quality**

Many thanks for your request for comments on the above NSIP Scoping Report. I can confirm that I agree with the general conclusions of the report that background levels at the site are low and reflective of an agricultural setting. I would note that I am also in agreement that there is a paucity of monitoring data from Mid Suffolk District Council for the area around the development but would add that I think the applicant could draw on data held by South Norfolk Council that may operate monitoring sites around Diss in the far south of their district. I also accept the 20203 baseline data and the use of the standard significance criteria from the Institute of Air Quality Management and that the scoping out of construction plant (NRMM) is fully justified.

Considering the above the scoping criteria appears satisfactory and we have no further comments to make at this stage.

### **Communities**

The impact on users of the footpath network does not appear to be assessed. Under the transport section 'non-motorised user amenity' has been classed out of scope. There are 2 places where footpaths cross the site and several nearby routes that may be affected. We know that countryside walking routes are important to the wellbeing of residents by providing opportunity to be active and access nature. There is clear potential for disruption, and we would expect to see an assessment, mitigation proposals and a position on the long-term access along those routes.

If a Community Benefit option arises, the most pressing need of which we are aware and would desire any scope to encompass is Mendlesham Parish Council's ambition to replace the Community Centre (the previous centre will be displaced by expansion of the primary school).

### **Place Services - Built Heritage Advice**

The following advice concerns the White Elm Solar Farm EIA Scoping Request dated October 2024. This letter reviews the Scoping Request and identifies areas requiring further work to ensure the impacts of the scheme upon built heritage assets within the Mid Suffolk District are understood, prior to the submission of the scheme as a formal application for planning consent.

Chapter 8 of the Scoping Report refers to Cultural Heritage which considers all aspects of the historic environment including built heritage and the historic landscape. Paragraph 8.2 says that the Cultural Heritage chapter 'will identify heritage assets with the potential to experience effects from the Project and will assess their importance, the magnitude of the impact and conclude with the resultant residual effect.'

### **Study Area**

Paragraphs 8.4 to 8.10 discuss the approach to identification of a study area for identifying heritage assets with the potential to be affected by the proposed development. Paragraph 8.11 states that there are no designated heritage assets within the Site boundary. The proposals are thus anticipated to impact the setting of designated built heritage assets only, not their physical fabric.

Paragraph 8.5 states that the Study Area for assessing the effects on designated heritage assets, namely Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Parks and Gardens, Registered Battlefields and World Heritage Sites has been set at an area of 3km from the site boundary based on the proposed height of the solar arrays at 3.6 metres above existing ground levels. This is a reasonable approach, in my opinion. Paragraph 8.14 states there are no Scheduled Monuments, Registered Parks and Gardens, World Heritage Sites or Registered Battlefields within the 3km Study Area and this appears to be the case.

Paragraph 8.6 sets out a Study Area of 1km from the site boundary for non-designated heritage assets (NDHAs) including locally listed buildings, locally important parks and gardens or other historic landscapes. This is a reasonable and proportionate approach, in my opinion.

Within the district there are only currently two local lists: for Nayland and Sudbury. Non-designated heritage assets may also be identified through the development management process, however, and I am unclear from the Scoping Report how NDHAs have been identified for the purposes of impact assessment. I note from paragraph 8.24 that a search of the Suffolk Historic Environment Record

(SHER) was undertaken within the Site boundaries and a 1km study area, but only findings relating to archaeology are discussed in the report (paragraphs 8.24 to 8.32). The approach to the identification of non-archaeological NDHAs should be clarified and these should be identified from field surveys within the 1km Study Area as well as from a search of the SHER.

Paragraph 8.7 states that a Screened Zone of Theoretical Visibility (SZTV) has been referenced to establish areas where the project may be theoretically visible within the surrounding landscape (screened using the topography of the landscape, existing built development of 8 metres in height and larger blocks of woodland of 15 metres in height). This is a reasonable approach, in my view.

Paragraph 8.8 says that the SZTV has been used to indicate which assets would not have visibility of the project. The same paragraph recognises that the setting of a heritage asset does not solely rely on intervisibility with the development. Paragraph 8.9 of the scoping report says that 'As the assessment continues, the SZTV will be used to exclude assets from assessment once they have been assessed to check there are no other factors contributing to their significance other than visibility which could experience effects.' I support the proposed approach to only screen out heritage assets from further assessment using the SZTV once a check for other attributes of setting contributing to significance has been carried out. However, paragraph 8.13 says that once the SZTV was applied to designated heritage assets within the 3km Study Area, the number of listed buildings and conservation areas was reduced (numbers for each type/grading of asset are provided in paragraphs 8.12 and 8.13) but I am unclear whether this was done *after* an assessment had been made for each that there are no other attributes of setting contributing to their significance other than visibility that could be affected by the proposed development. This should be clarified.

I note and accept from Paragraph 8.10 that assets beyond the 3km Study Area but within the SZTV have also been considered for their potential to experience significant effects resulting from the project and that none have been found with the potential to experience significant adverse effects from the development.

### **Preliminary Baseline Conditions**

Paragraph 8.15 says that Grade II listed buildings are considered to be designated heritage assets of less than the highest significance, whereas Grade I and Grade II\* listed buildings are considered to be of the highest significance in line with paragraphs 5.9.30 and 5.9.31 of the Department for Energy

Security and Net Zero's *Overarching National Policy Statement for Energy (EN-1)* (November 2023). Conservation Areas are considered to 'hold heritage significance of a level proportionate to their special historic and architectural interest.'

Table 9.1 sets out criteria for establishing value/sensitivity in the Environmental Impact Assessment methodology, where Grade II listed buildings and Conservation Areas will be considered to be of Moderate value/sensitivity whereas Grade I and Grade II\* listed buildings are to be considered to be of High sensitivity. This is an acceptable approach providing this would not preclude the finding of a significant adverse effect to any heritage asset with a Moderate value/sensitivity. The definition of a significant adverse effect has not been provided in the report and this should be confirmed, for example, if this would be considered to be a Moderate and/or Major Level of Effect.

I note from Table 9.1 that non-designated buildings, monuments or sites have the potential to be considered of High value/sensitivity if they have 'a very important quality in their fabric or historic associations'. I consider it anomalous that a non-designated building might be considered to be of higher value/sensitivity than a Grade II listed building (considered to be of national importance).

#### *Listed Buildings*

Paragraph 8.16 identifies several Grade II listed buildings in proximity to the Site boundary and this is confirmed by a review of Figure 8.2 which shows designated heritage assets and the SZTV with a focus on the site. Paragraphs 8.17 to 8.22 provide a further overview of listed buildings within the 3km Study Area and four Conservation Areas are identified within the Study Area in paragraph 8.23.

No NDHAs are currently named or shown on either Figure 8.1 or 8.2 and the proposed approach to their identification should be clarified as set out above.

#### **Likely Significant Effects**

Paragraph 8.33 says that 'all of the designated heritage assets within the 3km study area and the assets within the 1km study area will be reviewed and then specific assets will be subject to assessment within the baseline'. The Heritage Statement should clearly set out all designated heritage assets within the 3km study area (with their National Heritage List for England (NHLE) reference numbers) and all the NDHAs within the 1km Study Area with a clear means of location identification. For each heritage asset scoped out of the baseline a clear explanation should be provided. Likewise, where assets are proposed to be grouped for assessment, a clear rationale should be provided.

Where designated and non-designated heritage assets are located within a Conservation Area, the assessment of the contribution of setting to significance and the impact of the development on that significance should be carried out for each individual heritage asset (or groups of assets where appropriate and justified) as well as for the Conservation Area.

#### *Construction Phase*

Paragraph 8.39 notes that Construction effects could arise from vehicle movements, construction noise and activity with a significant effect on at least five Grade II listed farmhouses. It is not clear what measures will be taken to mitigate these effects through construction management planning and how the impact of construction effects will be assessed, and this should be clarified.

#### *Operation Phase*



Paragraph 8.41 notes there is considered to be a significant adverse effect on a number of designated heritage assets within the Study Area which includes six Grade II listed buildings in proximity to the site boundary, the Mendlesham Conservation Area, the Wickham Skeith Conservation Area and the assets located within them as well as assets located at Thwaite. I would concur with this list as a starting point but consider it likely that due to their proximity to the site boundary there are also likely to be significant adverse effects to:

- Grade II listed Poplar Farmhouse (List entry number 1032282)
- Grade II listed Hunters Moon (List entry number 1352481)
- Grade II listed Barn at Thwaite Hall (List entry number 1032282)

I would also expect the Grade I listed Church of St Andrew (List entry number 1352531) to the north of the site boundary and the Grade II\* listed Church of St George (List entry number 1032261) to the east of the site boundary to be scoped in to the baseline assessment since assets of High value/sensitivity have the potential for a Moderate level of effect from a Low magnitude of impact.

As stated above, I would like to see setting and impact assessments for individual assets or groups of assets within Conservation Areas as well as the Conservation Areas themselves. Conservation Areas within the Study Area should also be considered based on their current appearance.

Mendlesham Conservation Area and Wickham Skeith Conservation Area, for example, were last appraised in 2008. An assessment of any development which has occurred since these Conservation Areas' boundaries were appraised would be beneficial.

As set out above, there is also the potential for NDHAs to be identified and for them to be impacted by the development and these should be clearly set out.

#### *Assessment Methodology*

The proposed assessment methodology is consistent with other EIA methodologies I have previously assessed.

Please see comments above regarding the Criteria for establishing value/sensitivity provided in Table 9.1. I am able to accept the Moderate value/sensitivity of Grade II listed buildings providing that this would not preclude a significant adverse effect from being identified. As above, the definition of a significant adverse effect has not been provided in the report and this should be confirmed, for example, if this would be considered to be a Moderate and/or Major Level of Effect.

#### *Magnitude of Impact*

I note and accept this part of the methodology set out in paragraphs 8.47 and 8.48 including the criteria for establishing the level of impact set out in Table 9.2.

Whilst I recognise the EIA methodology for impact assessment, the impact of the proposed development on the significance of designated heritage assets should ultimately be expressed in terms of harm to significance (substantial harm, total loss, or less than substantial harm) which is as set out in paragraphs 5.9.27 to 5.9.32 of NPS EN-1. I note that paragraph 8.65 of the Scoping Report says that 'a narrative conclusion will be set out which will discuss the level of harm (if any) the Project will have upon the significance of the heritage assets' and this should be clearly set out for each asset.

Where a level of less than substantial harm to significance is identified, this should be expressed on a scale ranging from the lowest to the highest level. I would accept this assessment being made following the application of additional mitigation measures (as discussed with regards to Residual Effect) set out in paragraphs 8.49 and 8.50 of the Scoping Report. I would expect to see a level of harm to significance expressed for all heritage assets where a Level of Effect of Minor, Moderate, or Major adverse has been identified. Harm to the significance of non-designated heritage assets should be expressed on a scale of the lowest to highest level of harm to significance.

#### *Residual Effect*

As above, I would accept this assessment being made following the application of additional mitigation measures (as discussed with regards to Residual Effect) set out in paragraphs 8.49 and 8.50 of the Scoping Report.

#### *Table 9.3 Levels of Effect*

As above, the definition of a significant adverse effect has not been provided in the report and this should be confirmed, for example, if this would be considered to be a Moderate and/or Major Level of Effect.

#### **Proposed Approach to Baseline**

I note and support the sources of data set out in paragraph 8.51.

As set out above, the Heritage Statement should clearly set out all designated heritage assets within the 3km study area (with their National Heritage List for England (NHLE) reference numbers) and all the NDHAs within the 1km Study Area with a clear means of identification. For each heritage asset scoped out of the baseline a clear explanation should be provided. Likewise, where assets are proposed to be grouped for assessment, a clear rationale should be provided.

Paragraph 8.52 says that the baseline will identify and describe assets and their significance, including the contribution to significance made by their setting. I agree that a key consideration in assessing the impact of the proposal is the contribution setting makes to the significance of each heritage asset and the impact on that significance arising from the proposed development.

The contribution to the significance of heritage assets from their setting should be assessed following the sequential approach set out in Historic England's GPA Note 3 The Setting of Heritage Assets (2017) which includes attributes of setting such as historic functional relationships to the landscape and relationships with other heritage assets (which can be established through reference to historic mapping, particularly the nineteenth century Tithe maps and apportionments). The assessment should fully consider all the attributes of setting and the attributes of the proposal (including environmental considerations as well as visual) which could impact the significance of heritage assets.

Paragraph 8.53 refers to supplementation of the baseline by a Site and Study Area walkover which will be focused on visiting heritage assets identified in the initial baseline. However, the identification of NDHAs is also likely to depend on a Study Area walkover and these should part of the baseline assessment.

Paragraph 8.54 discusses viewpoints. Views to, from and including heritage assets may contribute to their significance or enabling that significance to be appreciated and the selection of relevant viewpoints and views should be carried out as a direct part of the setting assessment and not as a secondary activity of the team carrying out the Landscape and Visual Impact Assessment viewpoint

photography. Where assessed to be applicable, wireline views and photomontages which take seasonal and diurnal variations into account will be key to understanding the impact of the development on significance.

I support the approach to consultation set out in paragraph 8.55.

#### *Proposed Approach to ES (and PEIR)*

As above, with regards to paragraph 8.59 it should be confirmed/clarified what will be considered to be likely significant adverse effects using the EIA methodology.

Paragraph 8.60 discusses mitigation to reduce the significance of identified adverse effects. Mitigation measures that have been designed into the scheme and which are considered to have reduced adverse effects should be explicitly set out in the PEIR and ES chapters. It should be noted that some mitigation measures, for example screening may have as intrusive an effect on the setting of heritage assets as the development it seeks to mitigate, so where it is necessary, it too merits careful design. This should take account of local landscape character and seasonal and diurnal effects, such as changes to foliage and lighting. The permanence or longevity of screening in relation to the effect on the setting and significance also requires consideration.

I note and endorse that the ES will identify and assess any likely significant cumulative effects resulting from the project in combination with other schemes (paragraphs 8.63 and 8.66).

As set out above, and as detailed in paragraph 8.65, the impact of the scheme on the significance of heritage assets should be expressed in terms of harm to significance as set out in NPS EN-1. This should be clearly set out for each asset in the PEIR and the ES.

#### **Preliminary Discussions of Potential Mitigation and Enhancement Measures**

Paragraphs 8.67 and 8.68 discuss embedded mitigation in the form of design changes. It should be confirmed whether this will apply to built heritage as well as archaeology. Whilst I would support interpretation and creation of walking routes to enhance public knowledge of the historic environment, I would not consider these as enhancement measures likely to better reveal the significance of heritage assets whose setting and significance is adversely impacted by the development.

#### **Other Matters**

Although appropriate guidance and policy are referred to in Chapter 8, I was unable to see a section on Relevant Policy, Legislation and Guidance which should be included.

#### **Place Services Ecology**

##### **Summary**

We have reviewed the submitted Environmental Impact Assessment Scoping Request (White Farm Solar Farm, Oct 2024) particularly Chapter 7 Nature Conservation and Biodiversity prepared by Clarkson and Woods. We note that the current proposed operational lifespan of the project is 40 years and progress in accordance with a phasing plan with a substation and electrical cabling to a new National Grid Substation independent of Norwich to Tilbury NSIP line.

##### **Baseline Information:**

The desktop assessment has been prepared in consultation with the Suffolk Biodiversity Information Service (SBIS) and these records inform the survey requirements. Protected and Priority species have been considered adequately and we recommend that all records including updated surveys undertaken should be shared with the local record centre.

We support the preparation of the desktop study using biological data from new or updated surveys undertaken should be shared with SBIS. We highlight the need to refer to Priority habitats and species in order for the LPA to demonstrate compliance with its biodiversity duty under s40 of the NERC Act (as amended) and the strengthened duty to conserve and enhance biodiversity. Please note that the Suffolk Biodiversity Action Plan 2012 has been archived and the Babergh Mid Suffolk Biodiversity and Trees SPD is still at draft stage.

**Potential Impacts:**

This proposed project is not predicted to impact on designated sites either SSSI or CWS. However, we request that the woodlands shown on Figure 7.3 Locally Designated Sites should be labelled in the ES as part of Thornham Estate Woods CWS not individual CWS and highlight that the Thorndon Roadside Nature Reserve 147 is also designated as CWS.

The majority of the project is set in arable farmland with a mixture of species-rich and species-poor hedgerows, 14 ponds, one small block of broadleaved woodland and a small number of trees noted as having veteran features within the site. We note that Great crested newt, water vole, Turtle Dove, breeding Skylark and at least seven species of bat have been recorded on site and reptiles have been assumed as present for the purpose of the ecological assessment. We will expect appropriate mitigation and compensation for non-significant impacts on Priority species and habitats.

The ES will need to assess likely impacts and demonstrate the mitigation hierarchy has been followed for predicted impacts on Priority habitats and species and we expect to avoid impacts on hedgerows for cable connections by using direction drilling and buffer zones. Reasonable mitigation measures have been identified for the construction process which will need to be secured by a Requirement of a DCO and we will also expect a Register of Environmental Actions and Commitments within the outline Code of Construction Practice (CoCP).

The Environmental Impact Assessment Scoping Request (White Farm Solar Farm, Oct 2024) has considered the potential impacts on all the relevant designated sites, protected and Priority species and habitats. This is necessary for the Local Planning authority and the Secretary of State to demonstrate they have met their strengthened s40 biodiversity duty. Survey and assessment should meet the requirements of both Natural England Standing Advice and the Suffolk Biodiversity Validation Checklist.

We note that compensation for significant adverse impacts on important ecological features will be considered once mitigation measures have been exhausted.

**Methodology:**

We are satisfied that nationally agreed CIEEM guidelines have been followed for the ecology surveys and all survey work has been undertaken in the appropriate season by appropriately qualified ecological consultants. Survey and assessment for protected species should meet the requirements of Natural England Standing Advice.

In accordance with Regulation 14 of the EIA Regulations, the ES should provide a statement about the relevant expertise or qualifications of the competent experts involved in its preparation.

Any report on badgers should be submitted as a separate confidential appendix clearly marked as containing sensitive information.

**Opportunities:**

We welcome the reference to habitat creation although this is limited to the Outline LEMP will set out how soft landscaping and biodiversity mitigation and enhancement measures would be managed throughout the operational phase of development.

To comply with National Policy Statement EN-3, there is a need to minimise disruption to existing local community infrastructure or biodiversity. There is also an opportunity to enhance the biodiversity value of the site as set out in EN3 para 2.10.89 with functioning connections to the wider ecological network as part of delivering net gain for biodiversity. We welcome confirmation that a BNG assessment will be included in the ES with reference to section 4.6 of EN-1. The EIA should thoroughly explore all reasonable options to enhance the development for protected and Priority species and meet the requirements of mandatory biodiversity net gain.

**Conclusion:**

We agree with the proposed ecological receptors are scoped in for further assessment within the Environmental Report and that the assessment will include de-commissioning phase for this NSIP.

In addition to the EIA report, it will be necessary to also provide sufficient information on non-significant impacts on protected and Priority species and habitats at submission either in a non EIA chapter or separate documentation. This is necessary in order that the LPA has certainty of all likely impacts, not just significant ones, from the development on Priority species and habitats and will look to add these details to the Statement of Common Ground for any mitigation and compensation measures needed to make the development acceptable, to be secured by Requirement of any DOC consent.

Our Ref: 35248641      National Gas use EN0110003 White Elm Solar Farm

Thursday, 31 October 2024

Jordane Maples  
National Grid House Gallows Hill  
Warwick  
WAR  
CV34 6DA

**National Gas Emergency Number:  
0800 111 999\***

\*Available 24 hours, 7 days/week.  
Calls may be recorded and monitored.  
[www.nationalgas.com](http://www.nationalgas.com)

Asset Protection  
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National Grid House  
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### **National Gas Transmission – High Risk Response Letter**

Dear Sir/ Madam,

An assessment has been carried out with respect to National Gas Transmission plc's apparatus and the proposed work location. Based on the location entered into the system for assessment the area has been found to be within the High Risk zone from National Gas Transmission plc's apparatus and you **MUST NOT PROCEED** without further assessment from Asset Protection.

Before you go ahead with these works, you are required to send your plans and a description for us to review them at [box.assetprotection@nationalgas.com](mailto:box.assetprotection@nationalgas.com). We will contact you within 28 days of receipt.

It is **YOUR** responsibility to take into account whether you are required to or would benefit from referring to the HSE Land Use Planning App (LUP), available from HSE's website. (Please note for some works this is a requirement for them to take place) More information on the LUP is available at <https://www.hse.gov.uk/landuseplanning/>

Please note this response and any attached map(s) are valid for 28 days.

Yours sincerely

**Asset Protection Team**

## Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near National Gas Transmission plc's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to National Gas Transmission plc (NGT)

This assessment does **NOT** include:

- National Gas Transmission's legal interest (easements or wayleaves) in the land which restricts activity in proximity to National Gas Transmission's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact Asset Protection.
- Recently installed apparatus.
- Apparatus owned by other organisations, e.g. Cadent, National Grid Electricity Transmission plc, other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities.

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to National Gas Transmission plc easements or wayleaves nor any planning or building regulations applications.

National Gas Transmission plc 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.

If you require further assistance please contact the Asset Protection team via e-mail ([box.assetprotection@nationalgas.com](mailto:box.assetprotection@nationalgas.com)) or via the contact details at the top of this response.

## Are My Works Affected?

### Is your proposal an Information Only or Planned Works Application?

#### Information Only

As your works are at an "Information Only" stage, any maps and guidance provided are for information purposes only. This is not approval to commence work. You must submit a "Planned Works" enquiry at the earliest opportunity and failure to do this may lead to disruption to your plans and works. Asset Protection will endeavour to provide an initial assessment within 28 days of receipt of a Planned Works enquiry and, dependent on the outcome of this, further consultation may be required. In any event, for safety and legal reasons, works must not be carried out until a Planned Works enquiry has been completed and final response received.

#### Planned Works

Your proposal is in proximity of National Gas Transmission plc's apparatus, as shown on the attached map, which may impact, and possibly prevent, your proposed activities for safety and/or legal reasons.

**You must not commence any work until you have sent details to us at [box.assetprotection@nationalgas.com](mailto:box.assetprotection@nationalgas.com) and have received a response back confirming that we have no objections to the work taking place.** You must read and follow all the guidance provided when planning or undertaking any activities at this location.

We will contact you within 28 working days of you providing us with the details of your work at the email address above. Please email, or call us at 0800 970 7000, if you have not had a response within this time frame.



## Assessment

### Affected Apparatus

The apparatus that has been identified as being in the vicinity of your proposed works is:

- National Gas Transmission Pipelines and associated equipment

## Requirements

### National High Pressure Gas Pipelines

BEFORE carrying out any work you must:

- Ensure that no works are undertaken in the vicinity of our gas pipelines and that no heavy plant, machinery or vehicles cross the route of the pipeline until detailed consultation has taken place.
- Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe National Gas Transmission's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near National Gas Transmission's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' This guidance can be downloaded free of charge at <http://www.hse.gov.uk>
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

DURING any work you must:

- Ensure that the National Gas Transmission requirements are followed for work in the vicinity of High pressure pipelines including the supervision of the digging of trial holes.
- Comply with all guidance relating to general activities and any specific guidance for each asset type as specified in the Guidance Section below.
- Ensure that access to National Gas Transmission apparatus is maintained at all times.
- Prevent the placing of heavy construction plant, equipment, materials or the passage of heavy vehicles over National Gas Transmission apparatus unless specifically agreed with National Gas Transmission in advance.
- Exercise extreme caution if slab (mass) concrete is encountered during excavation works as this may be protecting or supporting National Gas Transmission apparatus.
- Maintain appropriate clearances between gas apparatus and the position of other buried plant.

## GUIDANCE

### National Gas Transmission Network data

The Network map for National Gas Transmission assets can be downloaded at the following link in GIS format.

[www.nationalgas.com/land-and-assets/network-route-maps](http://www.nationalgas.com/land-and-assets/network-route-maps)

#### High Pressure Gas Pipelines Guidance:

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of National Gas Transmission High Pressure Gas Pipelines and Associated Installation – Requirements for Third Parties' (SSW22). This can be obtained from: <Link to SSW22 once it has been updated and signed off>

#### Essential Guidance document:

<https://www.nationalgas.com/sites/gas/files/documents/8589934982-Essential%20Guidance.pdf>

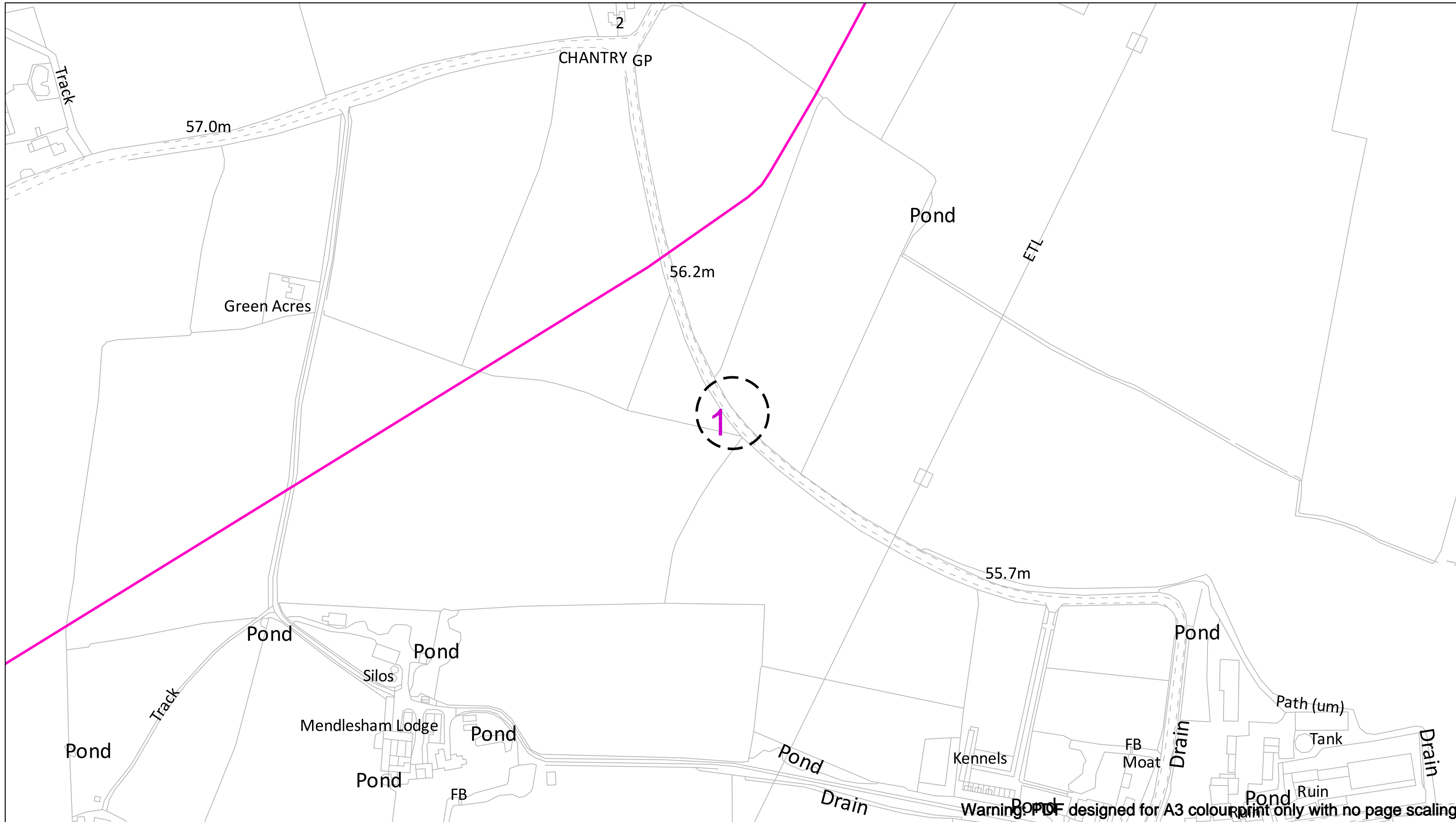
You should be aware of the following information regarding National Gas Transmission's high pressure underground pipelines and associated apparatus:

- Our underground pipelines are protected by permanent agreements with landowners or have been laid in the public highway under our licence. These grant us legal rights that enable us to achieve efficient and reliable operation, maintenance, repair and refurbishment of our gas transmission network. Hence we require that no permanent structures are built over or under pipelines or within the zone specified in the agreement, materials or soil are not stacked or stored on top of the pipeline route and that unrestricted and safe access to any of our pipeline(s) must be maintained at all times.
- The information supplied is given in good faith and only as a guide to the location of our underground pipelines. The accuracy of this information cannot be guaranteed. The physical presence of such pipelines may also be evident from pipeline marker posts. The person(s) responsible for planning, supervising and carrying out work in proximity to our pipeline(s) shall be liable to us, as pipeline(s) owner, as well as to any third party who may be affected in any way by any loss or damage resulting from their failure to locate and avoid any damage to such a pipeline(s).
- The relevant guidance in relation to working safely near to existing underground pipelines is contained within the Health and Safety Executive's ([www.hse.gov.uk](http://www.hse.gov.uk)) Guidance HS(G)47 "Avoiding Danger From Underground Services" and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Our pipelines are normally buried to a depth of 1.2 metres or more below ground and further information may be found on the plans provided. Ground cover above our pipelines should not be reduced or increased.
- Any proposed cable crossings are subject to approval from National Gas Transmission, completion of a Deed of Consent and must remain a minimum of 600mm above or below the pipeline. All works associated with cable installation must be supervised by National Gas Transmission. Cables cannot be pulled through until a Deed of Consent is in place.
- If it is planned to use mechanical excavators and any other powered mechanical plant, it shall not be sited or moved above the pipeline.
- If it is planned to carry out excavation to a depth greater than 0.3 metres, embankment or dredging works, the actual position and depth of the pipeline must be established on site with our representative

and a safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.

- The digging of trial holes to locate the pipeline must be carried out under the supervision of our on-site representative following approval of RAMS. Excavation works may take place unsupervised no closer than 3 metres from the pipeline once its actual location has been confirmed. Similarly, excavation with handheld power tools may take place no closer than 1.5 metres away.
- For operational and safety reasons National Gas Transmission requires unrestricted access to our Above Ground Installations and Compressor Stations. We would request that any proposed changes to roads/layouts in the vicinity of our site have regard to the need to maintain access.
- Any construction traffic should either cross the pipeline using existing roads or at agreed crossing locations using agreed protective measures.
- Ground anchors for scaffolding stay wires should only be sited in the vicinity of the pipeline after the pipeline position has been confirmed on site with our representative and the ground anchor position agreed.
- If your proposals include the installation of wind turbines then the minimum separation between the pipeline and the nearest turbine should be 1.5 times the mast height.
- If your proposals include the installation of a Solar Farm, all assets must remain outside of the National Gas Transmission easement, all cable crossings must be agreed during the design stage, a Deed of Consent undertaken and an Earthing report must be provided for review. National Gas Transmission must retain access to its assets at all times once works have been completed.

The relocation of existing underground pipelines is not normally feasible on grounds of cost, operation and maintenance and environmental impact. Further details can be found in our specification for: safe working in the vicinity of National Gas Transmission high pressure gas pipelines and associated installations – requirements for third parties: T/SP/SSW/22 (see link above or copy enclosed)

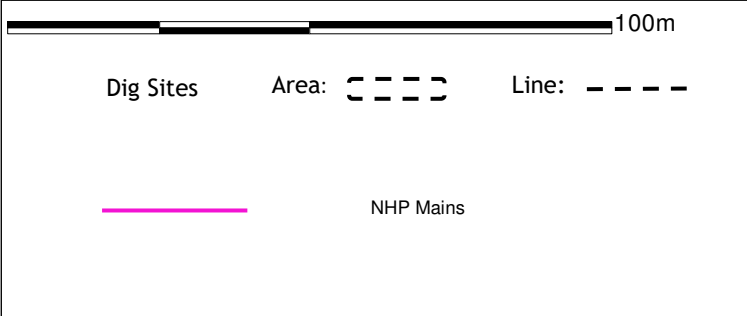


Date Requested: 31/10/2024  
 Job Reference: 35248641  
 Site Location: 609438 266394  
 Requested by:  
 Miss Jordane Maples  
 Your Scheme/Reference: National Gas use EN0110003 White Elm Solar Farm  
 Scale: 1:2500 (When plotted at A3)

**IMPORTANT NOTICES**  
 This plan shows those pipes owned by National Gas Transmission PLC in its role as a licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regards to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Gas Transmission PLC or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

**National Gas Transmission Emergency Number: 0800 111 999**  
 Available 24 hours, 7 days/week. Calls may be recorded and monitored

Warning: PDF designed for colour print only with no page scaling



**National Gas Transmission**  
 National Grid House  
 Warwick Technology Park  
 Gallows Hill  
 Warwick  
 CV34 6DA  
 box.assetprotection@nationalgas.com

# ENQUIRY SUMMARY

## Received Date

31/10/2024 14:35

## Work Start Date

01/11/2024

## Your Reference

National Gas use EN0110003 White Elm Solar Farm

## Location

Centre Point: 609438 266394

X Extent:

Y Extent:

Postcode: IP145SS

## Map Options

Paper Size: A3

Orientation: LANDSCAPE

Scale: 1:2500

Real World Extents: 50m x 50m

## Enquirer Details

Organisation Name: National Gas Transmission

Contact Name: Jordane Maples

Email Address: [REDACTED]@nationalgas.com

Telephone: [REDACTED] [REDACTED]

Address: National Grid House Gallows Hill, Warwick , WAR, CV34 6DA

## Enquiry Type

Information Only

## Activity Type

Planning Applications

## Work Types

Solar Farm

## Notes/Works Description (if supplied)

Solar Farm- Scoping opinion

## Site Contact Name (if supplied)

Jordane Maples

## Site Contact Number (if supplied)

07702622482

Asset Protection  
National Gas Transmission  
National Grid  
Warwick  
Direct Tel:  
Email:

**Planning Work?**  
**Please enquire with us at**  
[www.lsbud.co.uk](http://www.lsbud.co.uk)

**National Gas Emergency Number:**  
**0800 111 999\***

\*Available 24 hours, 7 days/week.  
Calls may be recorded and monitored.  
[www.nationalgas.com](http://www.nationalgas.com)

Date : 11/6/2024

Our Reference: GE5\_35248641

Your Reference: National Gas use EN0110003 White Elm Solar Farm

**Ref: Site Address Not Provided**

National Gas Transmission exercises its right to place a Holding Objection to the above proposal which will cross our High-Pressure Gas Pipeline – Feeder 5.

**Holding Objection:**

National Gas Transmission operates a high-pressure gas pipeline that runs through the land parcels proposed for development.

**FEEDER PIPELINE 5 - Diss Compressor T to Stowmarket**

The pipeline has a 12.2m easement in operation (6.1m either side of pipe). No development, construction or landscaping is permitted within the easement without formal written approval from National Gas Transmission.

There are specific criteria that must be adhered to for developing solar farms in close proximity to National Gas Transmission's gas pipelines. Solar Farms can be built adjacent to pipelines but never within the easement.

Utility crossings over National Gas Transmission's gas pipelines are restricted and will require 'Deeds of Consent / Indemnity'.

The developer is to engage with National Gas Transmission for further guidance in the early stages of design to ensure that electrical interference, security, future access, and construction methods can be mutually agreed prior to undertaking any works on site.

Please ask the applicant to contact me to arrange a meeting and we can discuss the proposal in more detail.

- We would draw your attention to the Planning (Hazardous Substances) Regulations 1992, the Land Use Planning rules and PADHI (Planning Advise for Developments near Hazardous Installations) guidance published by the HSE, which may affect this development.
- To visit the Land Use Planning site, please use the link below:  
<https://www.hse.gov.uk/landuseplanning/methodology.htm>
- No buildings should encroach within the Easement strip of the pipeline
- No demolition shall be allowed within 150 metres of a pipeline without an assessment of the vibration levels at the pipeline. Expert advice may need to be sought which can be arranged through National Gas Transmission.
- National Gas Transmission has a Deed of Easement for each pipeline which prevents change to existing ground levels, storage of materials. It also prevents the erection of permanent / temporary buildings, or structures. If necessary National grid will take action to legally enforce the terms of the easement.
- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and National Gas Transmission's specification for Safe Working in the Vicinity of National Gas Transmission High Pressure gas pipelines and associated installations - requirements for third parties T/SP/SSW22. You should already have received a link to download a copy of T/SP/SSW/22, from our Plant protection Team, which is also available to download from our website.
- To view the SSW22 Document, please use the link below:  
<https://www.nationalgrid.com/uk/gas-transmission/document/113921/download>
- A National Gas Transmission representative will be monitoring the works to comply with SSW22.
- To download a copy of the HSE Guidance HS(G)47, please use the following link:  
<http://www.hse.gov.uk/pubns/books/hsg47.htm>
- National Gas Transmission will also need to ensure that our pipelines access is maintained during and after construction.
- Our pipelines are normally buried to a depth cover of 1.1 metres however; actual depth and position must be confirmed on site by trial hole investigation under the supervision of a National Gas Transmission representative. Ground cover above our pipelines should not be reduced or increased.
- If any excavations are planned within 3 metres of National Gas Transmission High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a National Gas Transmission representative. A safe working method must be agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Excavation works may take place unsupervised no closer than 3 metres from the pipeline once the actual depth and position has been confirmed on site under the supervision of a National Gas Transmission representative. Similarly, excavation with hand held power tools is not permitted within 1.5 metres from our apparatus and the work is undertaken with NGT supervision and guidance.

### **Pipeline Crossings**

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at locations agreed with a National Gas Transmission engineer.

- All crossing points will be fenced on both sides with a post and wire fence and with the fence returned along the easement for a distance of 6 metres.
- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. No protective measures including the installation of concrete slab protection shall be installed over or near to the National Gas Transmission pipeline without the prior permission of National Gas Transmission. National Gas Transmission will need to agree the material, the dimensions and method of installation of the proposed protective measure. The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to National Gas Transmission.
- Please be aware that written permission from National Gas Transmission is required before any works commence within the National Gas Transmission easement strip.
- A National Gas Transmission representative shall monitor any works within close proximity to the pipeline to comply with National Gas Transmission specification T/SP/SSW22.
- A Deed of Indemnity is required for any crossing of the easement including cables

### **Cables Crossing**

- Cables may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- A National Gas Transmission representative shall supervise any cable crossing of a pipeline.
- An impact protection slab should be laid between the cable and pipeline if the cable crossing is above the pipeline.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service must cross below the pipeline with a clearance distance of 0.6 metres.

### **All work should be carried out in accordance with British Standards policy**

- BS EN 13509:2003 - Cathodic protection measurement techniques
- BS EN 12954:2001 - Cathodic protection of buried or immersed metallic structures – General principles and application for pipelines
- BS 7361 Part 1 - Cathodic Protection Code of Practice for land and marine applications.

I have enclosed a location map to show the location of National Gas Transmission high-pressure gas pipeline(s) within the vicinity of your proposal.

Yours sincerely

Asset Protection Assistant





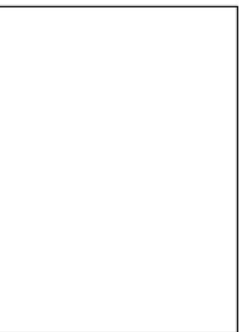
**Legend**

- GT ASSET
- Comm
- Gas Zone
- Named Pipeline
- Section
- Pipe Section
- Other
- Pipeline Crossing
- CP Tee
- Pipe Connection Point
- Aerial Post
- Vantage

**Notes**



TS  
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crossing  
Marker  
ge Point





## Specification for safe working in the vicinity of National Gas Transmission high pressure gas pipelines and associated installations - requirements for third parties





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Emergency telephone number:

**0800 111 999\***

\*All calls are recorded and may be monitored

## Disclaimer

This document is provided for use by third parties for safe working in the vicinity of National Gas Transmission high pressure gas pipelines and associated installations.

Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

## Mandatory and non-mandatory requirements

### In this document:

**shall:** indicates a mandatory requirement.

**should:** indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment shall be completed to show that the alternative method delivers the same, or better, level of protection.

# Introduction

## Specification for safe working in the vicinity of National Gas Transmission high pressure gas pipelines and associated installations – requirements for third parties.

This specification is for issue to third parties carrying out work in the vicinity of National Gas Transmission high pressure gas pipelines (above 7 bar gauge) and associated installations and is provided to ensure that individuals planning and undertaking work take appropriate measures to prevent damage.

Any damage to a high pressure gas pipeline or its coating can affect its integrity and can result in failure of the pipeline with potential serious hazardous consequences for individuals located in the vicinity. It is therefore essential that the procedures outlined in this document are complied with when working near to a high pressure pipeline. If any work is considered by National Gas Transmission to be in breach of the requirements stipulated in this document, then the National Gas Transmission responsible person will suspend the work until the non-compliances have been rectified.

The Pipelines Safety Regulations state that “No person shall cause such damage to a pipeline as may give rise to a danger to persons” (Regulation 15). Failing to comply with these requirements could therefore also result in prosecution by the Health and Safety Executive (HSE).

The requirements in this document are in line with the requirements of the Institution of Gas Engineers and Managers (IGEM) recommendations IGE/SR/18 Edition 2 - Safe Working Practices to Ensure The Integrity Of Gas Pipelines And Associated Installations and the HSE’s guidance document HS(G)47 Avoiding Danger from Underground Services. It is the responsibility of the third party to ensure that any work carried out also conforms with the requirements of the Construction and Design Management Regulations and all other relevant health and safety legislation.

## Always contact National Gas Transmission prior to carrying out any work in the vicinity of a high pressure pipeline.

### CONTACT NATIONAL GAS TRANSMISSION

Submit an enquiry via [www.LSBUD.co.uk](http://www.LSBUD.co.uk) to inform National Gas Transmission of your work.

### CONSIDER SAFETY

Consider the safety requirements - Section 3 of this document.

### INFORM NATIONAL GAS TRANSMISSION AND REQUEST PIPELINE LOCATION

Inform National Gas Transmission prior to carrying out work and arrange for National Gas Transmission to locate the pipeline - Section 4 of this document.

Note: at least 14 days' notice is normally required.

### OBSERVE RESTRICTIONS

Observe National Gas Transmission restrictions on the allowed proximity of mechanical excavators and other power tools and the measures to protect the pipeline from construction vehicles when carrying out the work - Sections 5, 6 and 7 of this document.

Note: National Gas Transmission may wish to supervise the work, consult National Gas Transmission to confirm whether or not this is the case.

### SPECIFIC ACTIVITIES (Section 8 of this document)

No-Dig Techniques  
Change in Cover  
Piling  
Seismic Surveys

Hot Work  
Blasting  
Demolition  
Surface Mineral Extraction

Landfilling  
Pressure Testing  
Deep Mining  
Wind Farms  
Solar Farms  
Festivals & Large Gatherings

### CONSULT NATIONAL GAS TRANSMISSION

Consult National Gas Transmission prior to any backfilling over, alongside or under the pipeline and obtain National Gas Transmission's agreement to proceed. Normally National Gas Transmission requires 48 hours' notice prior to backfilling - Section 9 of this document.

**IMPORTANT: This flowchart should be used in conjunction with the entire T/SP/SSW/22 document and not in isolation, AND if at any time during the works the pipeline is damaged even slightly then observe the precautions in Section 10 of this document.**

**IF IN DOUBT CONTACT NATIONAL GAS TRANSMISSION.**



## 1 Scope

This specification sets out the safety precautions and other conditions affecting the design, construction and maintenance of services, structures and other works in the vicinity of National Gas Transmission pipelines and associated installations operating at pressures greater than 7 bar gauge, located in both negotiated easements (see Section 12) and public highways.

## 2 Formal consent

High pressure pipelines are generally laid across country within an easement agreed with the landowner or within the highway.

As the required arrangements for working within an easement and working within the highway differ, this document has been structured to highlight the specific requirements for these two types of area where work may be carried out.

In Scotland a 'Deed of Servitude', known generally as a 'wayleave' is considered equivalent to 'easement' in this document.

Generally, normal agricultural activities are not considered to affect the integrity of the pipeline, however, consult National Gas Transmission prior to undertaking deep cultivation in excess of 0.5 m.

In all other cases no work shall be undertaken in the vicinity of the pipeline without the formal written consent of National Gas Transmission.

Any documents handed to contractors, or other individuals undertaking work (e.g. farmer, local authority etc.) on site by National Gas Transmission, shall be signed for by the site manager. National Gas Transmission will record a list of these documents using the form in Appendix A, and the contractor or other individuals undertaking work should maintain a duplicate list.

## 2.1 Within an easement

The promoter of any works (see Section 12) within an easement shall provide National Gas Transmission with details of the proposed works including a method statement of how the work is intended to be carried out. Preliminary investigations such as trial holes, cathodic protection, and coating surveys may be required to assess the feasibility of the work.

If the work involves installing new adopted assets in National Gas Transmission's pipeline easement, formal written consent will be required in the form of a deed of indemnity. Work shall not proceed until formal written consent has been given by National Gas Transmission.

This will include details of National Gas Transmission's protection requirements, contact telephone numbers and the emergency telephone number.

Note: the completion time for a deed of indemnity is a minimum of 6 months and this must be considered during the planning stage of a project.

Any costs incurred by National Gas Transmission as a result of the project are to be accepted by the promoter and are to be recovered on the completion of the work.

On acceptance of National Gas Transmission's requirements, the promoter of the works shall give National Gas Transmission 14 days' notice, or shorter only if agreed with National Gas Transmission, before commencing work on site.

## 2.2 Within the highway

Work shall be notified to National Gas Transmission in accordance with the requirements of The New Roads and Street Works Act (NRSWA) and HS(G)47.

The promoter of any works within the highway should provide National Gas Transmission with details of the proposed works including a method statement of how the work is intended to be carried out. This should be submitted 14 days before the planned work is to be carried out, or shorter only if agreed with National Gas Transmission. If similar works are being carried out at a number of locations in close proximity a single method statement should be adequate.

Work should not go ahead until formal written consent has been given by National Gas Transmission. This will include details of National Gas Transmission's protection requirements, contact telephone numbers and the emergency telephone number.

## 3 HS&E considerations

### 3.1 Safe control of operations

All working practices shall be agreed by National Gas Transmission prior to work commencing. All personnel working on site shall be made aware of the potential hazard of the pipeline and the actions they should follow in case of an emergency. The Site Document Control Form (Appendix A) should be used to record the list of relevant documents that have been provided by National Gas Transmission to persons undertaking work at the site.

### 3.2 Deep excavations

Special consideration should be given to the hazards associated with deep excavations. The HSE document CIS08 'Safety in Excavations' provides further guidance and is available on the HSE website [www.hse.gov.uk](http://www.hse.gov.uk)

### 3.3 Positioning of plant

Mechanical excavators and any other powered mechanical plant shall not be sited or moved above the pipeline unless written authority has been given by the National Gas Transmission responsible person.

Mechanical excavators and any other powered mechanical plant shall not dig on one side of the pipeline with the cab of the excavator positioned on the other side.

Mechanical excavators, any other powered mechanical plant, and other traffic shall be positioned far enough away from the pipeline trench to prevent trench wall collapse.

### 3.4 General

Works in the vicinity of high pressure pipelines may have an impact on the safety of the general public, site workers, National Gas Transmission staff and contractors, and may affect the local environment. Anyone (e.g. contractors, site workers, farmers, local authorities etc.) working close to the pipeline shall carry out suitable and adequate risk assessments prior to the commencement of work to ensure that all such issues are properly considered, and risks mitigated.

## 4 Pipeline locating

Where formal consent to work has been given, the third party should give 14 working days' notice, or shorter, if agreed with National Gas Transmission, to ensure that the pipeline is suitably located and marked out by a National Gas Transmission representative prior to the work commencing.

Before commencing work on site, the pipeline shall be located and pegged or suitably marked out by National Gas Transmission personnel using pipeline location markers with triangular flags (see Appendix B) to indicate the presence of the pipeline. In exceptional circumstances and only with the prior agreement of National Gas Transmission, the locating and marking out of the pipeline could be carried out by competent third parties as long as National Gas Transmission is assured of their competence and the procedures to be followed.

Safe digging practices, in accordance with HSE publication HS(G)47 should be followed as both direct and consequential damage to gas plant can be dangerous both to employees and to the general public.

Previously agreed working practices should be reviewed and revised based on current site conditions. Any changes shall be agreed by the National Gas Transmission responsible person.

The requirements for trial holes to locate the pipeline or determine levels at crossing points shall be determined by the National Gas Transmission responsible person during the initial review of the work.

The excavation of all trial holes shall be supervised by a National Gas Transmission representative.



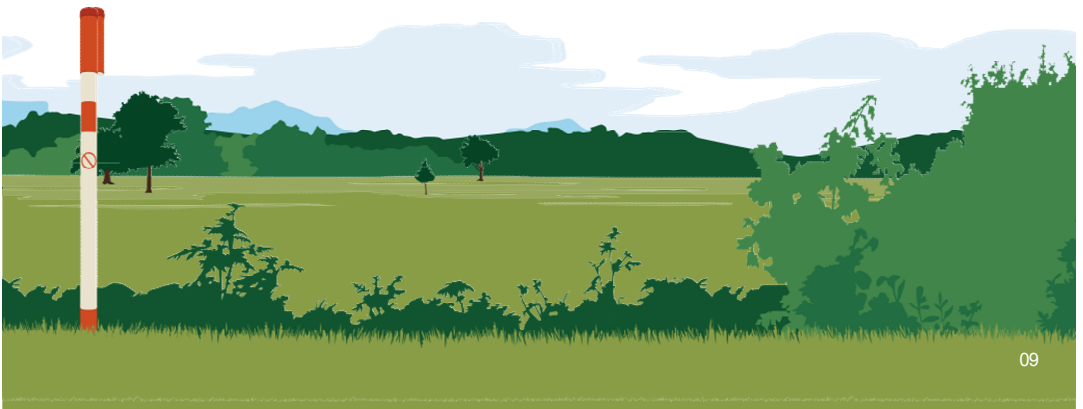
## 5 Slabbing and other protective measures

No protective measures, including the installation of concrete slab protection, shall be installed over or near to the National Gas Transmission pipeline without the prior permission of National Gas Transmission. National Gas Transmission will need to approve the material, the dimensions and method of installation of the proposed protective measure. The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to National Gas Transmission.

**Note:** A deed of indemnity may be required before a permanent concrete slab is installed over a National Gas Transmission pipeline. See section 2.1.

Where permanent slab protection is to be applied over the pipeline, National Gas Transmission will normally carry out a coating survey of the pipeline to check that there is no existing damage to the coating of the pipeline prior to the slab protection being put in place. This must be carried out prior to the installation of the slab.

The Safety precautions detailed in Sections 3 and 6 of this document should also be observed during the installation of the pipeline protection.



# 6 Excavation

## 6.1 In Proximity to a pipeline in an easement

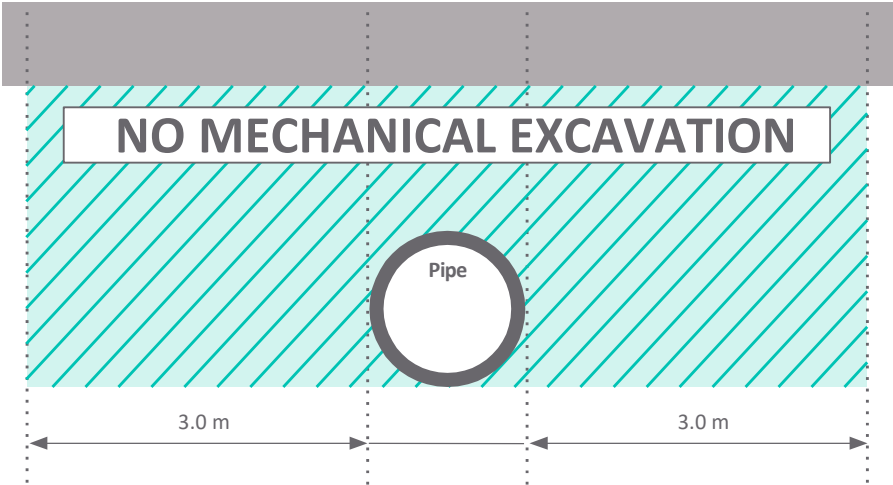
Third parties may excavate, unsupervised, with powered mechanical plant no closer than 3 metres to the National Gas Transmission pipeline as long as the pipeline has been clearly located and marked out by National Gas Transmission staff. Due to the potential of toothed excavator buckets to damage pipelines, toothless buckets shall be used. Any fitting, attachment or connecting pipework on the pipeline shall be exposed by hand. All other excavation shall be by hand.

Consideration may be given to a relaxation of these limits with the National Gas Transmission responsible person, provided the pipeline position has been confirmed by hand-dug trial holes and only whilst the National Gas Transmission representative remains on site.

Where sufficient depth of cover exists, following evidence from hand dug trial holes, light tracked vehicles may be permitted to strip topsoil to a depth of 0.25 metres, using a toothless bucket.

No topsoil or other materials shall be stored within the easement without the written permission of National Gas Transmission.

Figure 1. Excavation restrictions



No fires are allowed in the easement strip or close to above ground gas installations.

After the completion of the work the level of cover over the pipeline should be the same as that prior to work commencing, unless agreed otherwise with the National Gas Transmission responsible person.

No new service shall be laid parallel to the pipeline within the easement. In special circumstances, and only with formal written agreement from National Gas Transmission, this may be relaxed for short excursions where the service shall be laid no closer than 0.6 metres to the side of the pipeline.

Where work is being carried out parallel to the pipeline within or just alongside the easement, a post and wire fence shall be erected as a protective barrier between the works and the pipeline.

National Gas Transmission may require that an easement crossing agreement (deed of indemnity) be completed by the third party prior to the commencement of work.

This shall be discussed with the National Gas Transmission responsible person prior to the commencement of the works.

## 6.2 In proximity to a pipeline in the highway

Removal of the bituminous or concrete highway surface layer by mechanical means is permitted to a depth of 0.3 metres, although the use of chain trenchers to do this is not permitted within 3 metres of the pipeline. The National Gas Transmission representative may monitor this work.

Where the bituminous or concrete highway surface layer extends below 0.3 metres deep, it shall only be removed by handheld power assisted tools under the supervision of the National Gas Transmission representative. In exceptional circumstances, and following a risk assessment, these conditions may be relaxed by the National Gas Transmission responsible person.

Third parties may excavate, unsupervised, with powered plant mechanical plant no closer than 3 metres to the located National Gas Transmission pipeline. Any fitting or attachment shall be exposed by hand.

In special circumstances consideration may be given to a relaxation of these rules by agreement with the National Gas Transmission responsible person and only whilst the National Gas Transmission representative remains on site.

The use of 'No-dig' techniques is covered in Section 8.1.

Any new service running parallel to the pipeline should be laid no closer than 0.6 metres to the side of the pipeline (see Section 6.4).

### 6.3 Crossing over a pipeline

Where a new service is to cross over the pipeline, a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved, the service shall cross below the pipeline, see section 6.4.

**In special circumstances consideration may be given to a relaxation of these rules by agreement with the National Gas Transmission responsible person and only whilst the National Gas Transmission representative remains on site.**

### 6.4 Crossing below a pipeline

Where a service is to cross below the pipeline, a clearance distance of 0.6 metres between the crown of the service and underside of the pipeline shall be maintained.

Where lengths of pipeline greater than one metre are to be exposed, the National Gas Transmission responsible person shall be consulted. Any supports shall be removed prior to backfilling.

The exposed pipeline(s) shall be protected by matting and suitable timber cladding.



## 6.5 Cathodic protection

Cathodic Protection is applied to National Gas Transmission's buried steel pipelines and is a method of protecting pipelines from corrosion by maintaining an electrical potential the pipeline and anodes placed at strategic points along the pipeline.

Where a new service is to be laid and similarly protected, National Gas Transmission will undertake interference tests to determine whether the new service is interfering with the cathodic protection of the National Gas Transmission pipeline.

Should any cathodic protection posts or associated apparatus need moving to facilitate third party works, appropriate notice, at least 14 days, shall be given to National Gas Transmission. National Gas Transmission will undertake this work and any associated costs are to be covered by the third party.

## 6.6 Installation of electrical equipment

Where electrical equipment is being installed close to National Gas Transmission's buried steel pipelines, the effects of a rise of earth potential under fault conditions shall be considered by the third party and a risk assessment/earthing report shall be submitted to National Gas Transmission for their approval, prior to the works.

**Note:** A deed of indemnity will be required before any new apparatus (including electric/fibre cables) is installed within the pipeline easement. See section 2.1.

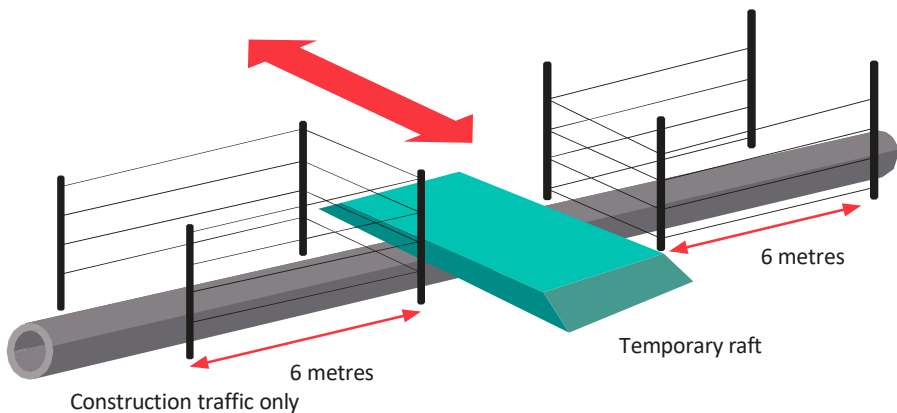
## 7 Construction traffic

Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at previously agreed locations.

All crossing points will be fenced on both sides with a post and wire fence and with the fence returned along the easement for a distance of 6 metres. The pipeline shall be protected, at the crossing points,

by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required. The type of raft shall be agreed with National Gas Transmission prior to installation.

Figure 2. Construction traffic requirements



## 8 Specific activities

This section details the precautions that need to be taken when carrying out certain prescribed activities in the vicinity of the pipeline. Consult National Gas Transmission if you are intending to undertake one of the listed prescribed activities and/or require further advice on whether the work that you are intending to undertake has the potential to affect the pipeline.

The table below shows, for some specific activities, the prescribed distances within which the advice of National Gas Transmission shall be sought (see Sections 8.1 to 8.13 for further details):

| Activity                   | Distance within which National Gas Transmission advice shall be sought   |
|----------------------------|--|
| Piling                     | 15 m   |
| Surface Mineral Extraction | 100 m  |
| Landfilling                | 100 m  |
| Demolition                 | 150 m  |
| Blasting                   | 250 m  |
| Deep Mining                | 1000 m   |
| Wind Turbines              | Not permitted within 1.5 times the turbine mast height from the nearest edge of a pipeline (please see <a href="http://www.ukopa.co.uk">www.ukopa.co.uk</a> ). |

### 8.1 No-dig techniques

Where the third party (e.g. contractor, farmer, local authority, site worker etc.) intends using no dig-techniques

then a formal method statement shall be produced for all work that would encroach (either above or below ground) within the pipeline easement. This method statement shall be formally agreed with National Gas Transmission prior to the commencement of the work. National Gas Transmission may wish to be present when the work is being carried out and shall therefore be given adequate advance notice before the commencement of the work.

## 8.2 Changes to depth of cover

### 8.2.1 Increase in Cover

A pipeline integrity assessment shall be provided for situations involving a final cover depth exceeding 2.5 metres. This assessment should take due account of soil 'dead' loading, ground settlement due to earthworks and the impact of the increased cover on National Gas Transmission's ability to inspect and maintain the pipeline.

Embankment design and construction over pipelines shall give consideration to prevention of any instability. Expert advice may need to be sought which can be arranged through National Gas Transmission.

### 8.2.2 Reduction in Cover

The depth of cover over National Gas Transmission's pipeline shall not be

reduced. National Gas Transmission shall be consulted for any activity proposed that will lead to a reduction in cover over the pipeline. Expert advice may need to be sought which can be arranged through National Gas Transmission.

### 8.3 Piling

No piling shall be allowed within 15 metres of a pipeline without an assessment of the vibration levels at the pipeline. The peak particle velocity at the pipeline shall be limited to a maximum level of 75 mm/sec.

Where the peak particle velocity is predicted to exceed 50 mm/sec, the ground vibration shall be monitored by the contractor and the results made available to the National Gas Transmission responsible person at their request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the pipeline shall be made.

Expert advice may need to be sought which can be arranged through National Gas Transmission.

### 8.4 Demolition

No demolition should be allowed within 150 metres of a pipeline without an assessment of the vibration levels at the pipeline. The peak particle velocity at the pipeline shall be limited to a maximum level of 75 mm/sec. Where the peak particle velocity is predicted to exceed 50 mm/sec, the ground vibration shall be monitored by the contractor and the results available to the National Gas Transmission responsible person at their request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the pipeline shall be made.

Expert advice may need to be sought which can be arranged through National Gas Transmission.

### 8.5 Blasting

No blasting should be allowed within 250 metres of a pipeline without an assessment of the vibration levels at the pipeline. The peak particle velocity at the pipeline shall be limited to a maximum



level of 75 mm/sec. Where the peak particle velocity is predicted to exceed 50 mm/sec, the ground vibration shall be monitored by the individual/company undertaking the work and the results made available to the National Gas Transmission responsible person at their request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the pipeline shall be made.

Expert advice may need to be sought which can be arranged through National Gas Transmission.

## 8.6 Surface mineral extraction

An assessment shall be carried out on the effect of surface mineral extraction activity within 100 metres of a pipeline. Consideration should also be given to extraction around other pipeline associated plant and equipment.

Where the mineral extraction extends up to the pipeline easement, a stable slope angle and stand-off distance between the pipeline and slope crest shall be determined by National Gas Transmission. The easement strip should be clearly marked by a suitable permanent boundary such as a post and wire fence, and where appropriate, slope indicator markers shall be erected to facilitate the verification of the recommended slope angle as the slope is formed, by the

third party. The pipeline easement and slope need to be inspected periodically to identify any signs of developing instability. This may include any change of slope profile including bulging, the development of tension cracks on the slope or easement, or any changes in drainage around the slope. The results of each inspection should be recorded.

Where surface mineral extraction activities are planned within 100 metres of the pipeline but do not extend up to the pipeline easement boundary, an assessment, by National Gas Transmission shall be made on whether the planned activity could promote instability in the vicinity of the pipeline. This may occur where the pipeline is routed across a natural slope, or the excavation is deep. A significant cause of this problem is where the groundwater profile is affected by changes in drainage or the development of lagoons.

Where the extraction technique involves explosives the provisions of section 8.5 apply.

## 8.7 Deep Mining

Pipelines routed within 1 km of active deep mining may be affected by subsidence resulting from mineral extraction. The determination of protective or remedial measures will normally require expert assistance, which can be arranged through National Gas Transmission.

## 8.8 Landfilling

The creation of slopes outside of the pipeline easements may promote instability within the vicinity of the pipeline. An assessment should therefore be carried out, by National Gas Transmission, on the effect of any landfilling activity within 100 metres of a pipeline. The assessment is particularly important if landfilling operations are taking place on a slope in which the pipeline is routed.

## 8.9 Pressure testing

Hydraulic testing of a third-party pipeline should not be permitted within 6 metres either side of a National Gas Transmission pipeline, to provide protection against the effects of a burst.

Where this cannot be achieved, typically where the third-party pipeline needs to cross a National Gas Transmission pipeline, one of the following precautions would need to be adopted:

a) limiting of the design factor of the third-party pipeline to 0.3 at the pipeline's nominated maximum operating pressure (MOP), and the use of pre-tested pipe.

or b) the use of sleeving.

In either case, the third party shall submit of their proposed precautions and method statement for National Gas Transmission consideration.

## 8.10 Seismic surveys

National Gas Transmission shall be advised of any seismic surveying work in the vicinity of pipeline that will result in National Gas Transmission's pipeline being subjected to peak particle velocities in excess of 50 mm/sec. The ground vibration near to the pipeline shall also be monitored by the contractor whilst the survey work is being carried out. Where the peak particle velocity is predicted to exceed 50 mm/sec, the ground vibration should be monitored by the contractor and the results made available to the National Gas Transmission responsible person at their request.

## 8.11 Hot work

The National Gas Transmission responsible person on site should supervise all welding, burning or other 'hot work' that takes place within the easement.

## 8.12 Wind Turbines

Wind turbines shall not be sited any closer than 1.5 times the proposed height of the turbine mast away from the nearest edge of the pipeline. See UKOPA Good Practice Guide UKOPA/GP/013 for more information.

## 8.13 Solar Farms

Solar Farms can be built adjacent to pipelines but never within the easement. Advice shall be sought from National Gas Transmission at the early stages of design to ensure that electrical interference, security, future access, and construction methods can be mutually agreed. See UKOPA Good Practice Guide UKOPA/GP/014 for more information.

## 8.14 Festivals and Large Gatherings

National Gas Transmission shall be informed of any festivals & large gatherings that will result in a temporary population increase in the vicinity of the pipeline. The pipeline easement must be kept clear of any obstructions (which

could include parked vehicles, tents etc.). The event organisers will provide an appropriate risk assessment, including an emergency plan, and detailed site plans for National Gas Transmission's consideration.



## 9 Backfilling

No backfilling should be undertaken without National Gas Transmission agreement to proceed. The National Gas Transmission responsible person will stipulate the necessary consolidation requirements.

Individuals/contractors/companies/organisations undertaking work shall provide National Gas Transmission with 48 hours' notice, or shorter notice only if agreed with National Gas Transmission, of the intent to backfill over, under or alongside the pipeline. This requirement should also apply to any backfilling operations alongside the pipeline within 3 metres of the pipeline.

**Minor damage to pipe coating and test leads will be repaired by National Gas Transmission free of charge.**

Any damage to the pipeline or coating shall be reported to the National Gas Transmission responsible person in order that damage can be assessed, and repairs can be carried out.

If the pipeline has been backfilled without the knowledge of the National Gas Transmission responsible person, they will require the material to be re-excavated to enable the condition of the pipeline coating to be confirmed.

## 10 Action in the case of damage to the pipeline

If the National Gas Transmission pipeline is damaged, even slightly, and even if no gas leak has occurred then the following precautions shall be taken immediately: -

- Shut down all plant and machinery and extinguish any potential sources of ignition.
- Evacuate all personnel from the vicinity of the pipeline.
- Notify the National Gas Transmission responsible person or his office.

immediately using the contact telephone number provided

- Ensure no one approaches the pipeline.
- Do not try to stop any leaking gas.
- Notify National Gas Transmission using the free 24-hour emergency telephone number.

**0800 111 999\***

\*All calls are recorded and may be monitored



## 11 References

|                     |  |
|---------------------|--|
| <b>NRSWA</b>        | New Roads & Street Works Act   |
| <b>HS(G)47</b>      | HSE Guidance 'Avoiding Danger from Underground Services'   |
| <b>IGE/SR/18</b>    | Safe Working Practices to Ensure the Integrity of Gas Pipelines and Associated Installations (Institution of Gas Engineers)      |
| <b>CIS08</b>        | Safety in Excavations (HSE document - see HSE website <a href="http://www.hse.gov.uk">www.hse.gov.uk</a> )                       |
| <b>UKOPA</b>        | United Kingdom Onshore Pipeline Operators' Association (see UKOPA website <a href="http://www.ukopa.co.uk">www.ukopa.co.uk</a> ) |
| <b>UKOPA/GP/013</b> | Requirements for the Siting and Installation of Wind Turbines Installations in the Vicinity of Buried Pipelines                  |
| <b>UKOPA/GP/014</b> | Requirements for the Siting and Installation of Solar Photovoltaic (PV) Installations in the Vicinity of Buried Pipelines        |
| <b>LSBUD</b>        | LinesearchbeforeUdig (see LSBUD website <a href="http://www.lsbud.co.uk">www.lsbud.co.uk</a> )                                   |

## 12 Glossary of terms

**Deed of Servitude:** In Scotland a 'Deed of Servitude' is considered equivalent to 'easement' in this document.

**Easement:** Easements are negotiated legal entitlements between National Gas Transmission and landowner and allow National Gas Transmission to lay, operate and maintain pipelines within the easement strip. Easement strips may vary in width typically between 6 and 25 metres depending on the diameter and pressure of the pipeline. Consult National Gas Transmission for details of the extent of the easement strip where work is intended.

**Liquefaction:** Liquefaction is a phenomenon in which the strength and stiffness of the soil is reduced by earthquake shaking or other rapid loading.

Liquefaction occurs in saturated soils, that is, soils in which the space between individual particles is completely filled with water. When liquefaction occurs, the strength of the soil decreases and the ability of the soil to support pipelines or other components is reduced.

**Promoter of works:** The person or persons, firm, company, or authority for whom new services, structures, or other works in the vicinity of existing National Gas Transmission pipelines and associated installations operating above 7 bar gauge are being undertaken.

**National Gas Transmission responsible person:** The person or persons appointed by National Gas Transmission with the competencies required to authorise and approve the particular activity.

**National Gas Transmission representative:** The person or persons appointed by National Gas Transmission with the competencies required to carry out on site activities, e.g. monitoring the specific activity, as per the agreed safe working practices.

**Wayleave:** General term which is considered equivalent to 'easement' in this document.

## 13. Privacy Notice

National Gas Transmission collect and process your data in accordance with our Privacy Notice. To view this, please go to <https://www.nationalgas.com/privacy-policy>

## Appendix A

### Site Document Control Form - Sample

|  |  |                           |  |
|--|--|---------------------------|--|
| <b>EMERGENCY TELEPHONE NO.</b>                 |  |                           |  |
| <b>0800 111 999*</b>                           |  |                           |  |
| <b>SITE DOCUMENT CONTROL FORM</b>              |  |                           |  |
| <b>Activity reference:</b>                     |  |                           |  |
| <b>Activity location:</b>                      |  |                           |  |
| <b>Site manager:</b>                           |  |                           |  |
| <b>NGT contact:</b>                            |  |                           |  |
| <b>The following documents were issued to:</b> |  |                           |  |
| <b>Individual's name:</b>                      |  |                           |  |
| <b>Company name &amp; address:</b>             |  |                           |  |
| <b>By:</b>                                     |  | <b>Date:</b>              |  |
| <b>Documents:</b>                              |  |                           |  |
| <b>Signed:</b> <i>(by the recipient)</i>       |  | <b>Date of signature:</b> |  |
| *All calls are recorded and may be monitored   |  |                           |  |

Site Document Control Form - Sample

|  |  |                           |  |
|--|--|---------------------------|--|
| <b>EMERGENCY TELEPHONE NO.</b>                 |  |                           |  |
| <b>0800 111 999*</b>                           |  |                           |  |
| <b>SITE DOCUMENT CONTROL FORM</b>              |  |                           |  |
| <b>Activity reference:</b>                     |  |                           |  |
| <b>Activity location:</b>                      |  |                           |  |
| <b>Site manager:</b>                           |  |                           |  |
| <b>NGT contact:</b>                            |  |                           |  |
| <b>The following documents were issued to:</b> |  |                           |  |
| <b>Individual's name:</b>                      |  |                           |  |
| <b>Company name &amp; address:</b>             |  |                           |  |
| <b>By:</b>                                     |  | <b>Date:</b>              |  |
| <b>Documents:</b>                              |  |                           |  |
| <b>Signed:</b> <i>(by the recipient)</i>       |  | <b>Date of signature:</b> |  |

\*All calls are recorded and may be monitored

## Appendix B

### Pipeline Location Flags



## National Gas Transmission contact details:



### EMERGENCY TELEPHONE NO.

**0800 111 999\***

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# national gas transmission


SELF SERVICE FOR PLANT ENQUIRIES:  
[www.lsbud.co.uk](http://www.lsbud.co.uk)

This is a free online enquiry service giving results within minutes from a grid reference, postcode or street name. This site allows you to submit enquiries about activities and work that you are planning, which may have an impact on the National Gas Transmission Network.

IF YOU ARE PLANNING TO DO WORK NEAR OR IN THE VICINITY OF A PIPELINE AND NEED SUPPORT TO RAISE AN ENQUIRY PLEASE CONTACT

 0800 970 7000\*

 [box.assetprotection@nationalgas.com](mailto:box.assetprotection@nationalgas.com)

 National Gas Transmission House  
Gallows Hill  
Warwick  
CV34 6DA

\*Calls will be recorded and may be monitored

[www.LSBUD.co.uk](http://www.LSBUD.co.uk)



## EMERGENCY

If you hit the pipeline, whether the damage is visible or not, or in the event of an emergency, call the National Gas Transmission Service immediately on

**0800 111 999\***

\*CALLS WILL BE RECORDED  
AND MAY BE MONITORED

T/SP/SSW/22  
March 2024



Printed on recycled paper.

Tiffany Bate  
Development Liaison Officer  
UK Land and Property  
[REDACTED]@nationalgrid.com

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:  
whiteelmsf@planninginspectorate.gov.uk

27 November 2024

Dear Sir/Madam

**APPLICATION BY ELMYA RPC UK GRANGE ROAD LIMITED (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE WHITE ELM SOLAR FARM (THE PROPOSED DEVELOPMENT)**

### **SCOPING CONSULTATION RESPONSE**

I refer to your letter dated 29<sup>th</sup> October 2024 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 substation forms an essential part of the electricity transmission network in England and Wales.

#### Overhead Lines

4YM 400kV OHL            BRAMFORD - NORWICH MAIN 1  
                                 BRAMFORD - NORWICH MAIN 2

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>

## **Proposed New Onshore Infrastructure**

### Norwich to Tilbury

Norwich to Tilbury is a proposal by National Grid Electricity Transmission (National Grid) to reinforce the high voltage power network in East Anglia between the existing substations at Norwich Main in Norfolk, Bramford in Suffolk, and Tilbury in Essex, as well as connect new offshore wind generation. We are proposing to build approximately 184 km of new electricity transmission reinforcement between Norwich and Tilbury. This will be made up mostly of overhead line and pylons, along with some underground cables and a new 400 kV substation. Details of the proposed infrastructure are available at the following website: <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/norwich-to-tilbury>

### New 400kv Substation for New Customer Connections

NGET are also proposing to build a new substation to connect new customers to the network along the Bramford to Yaxley line but the location of the new substation is still to be confirmed.

**NGET wish to lodge a holding objection and NGET should be engaged to fully explore the feasibility of this option without compromise to proposed NGET works.**

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.



## 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](http://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/pubns/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](mailto:box.landandacquisitions@nationalgrid.com)

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

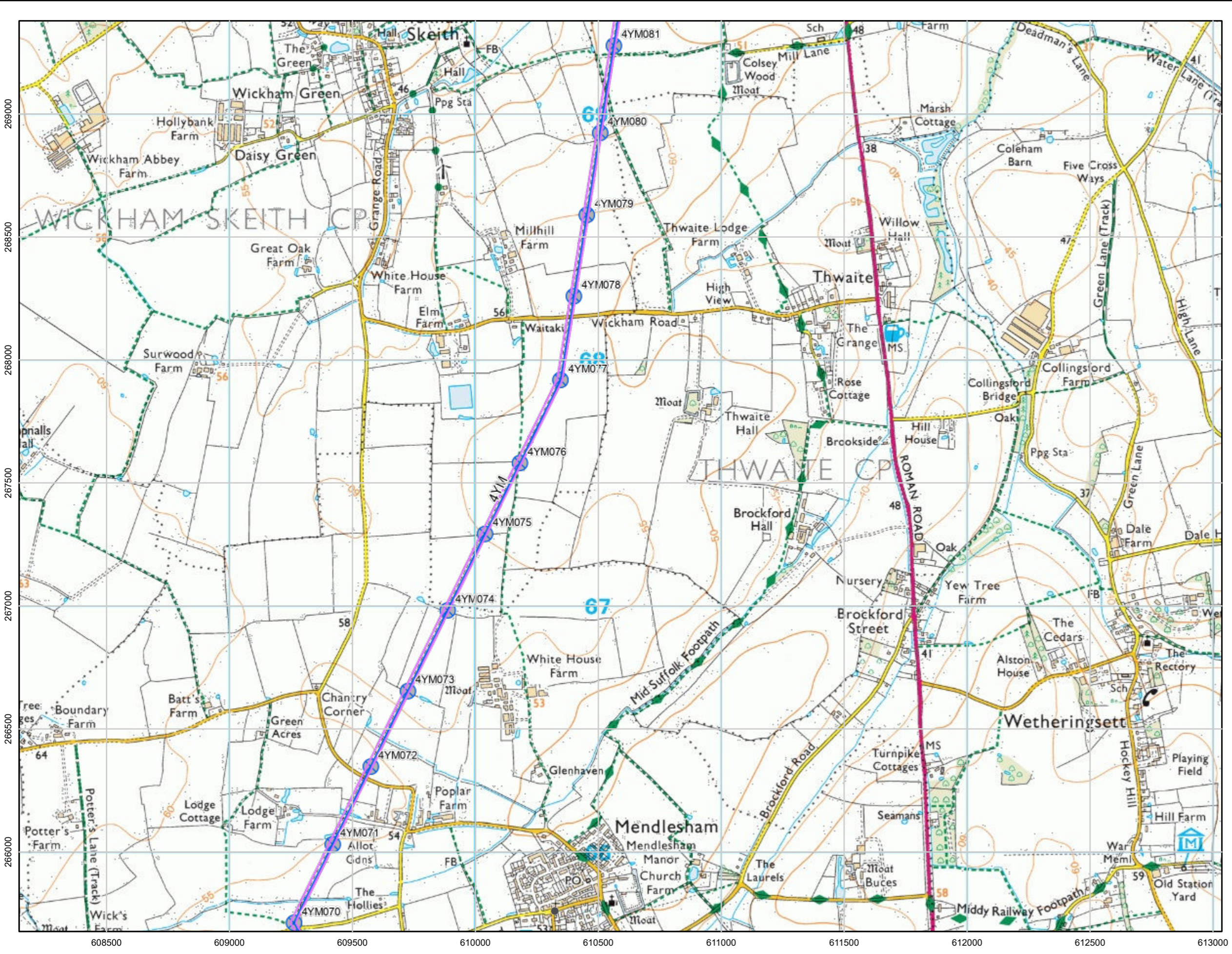
The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully



**Tiffany Bate  
Development Liaison Officer  
Commercial and Customer Connections  
Electricity Transmission Property Land and Property**





**Legend**

- Fibre Cable
  - Commissioned
  - Decommission
- Towers
  - Commissioned
- OHL 400kV
  - Commissioned
  - Circuits
- Group

**Notes**



Technical Guidance Note 287

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

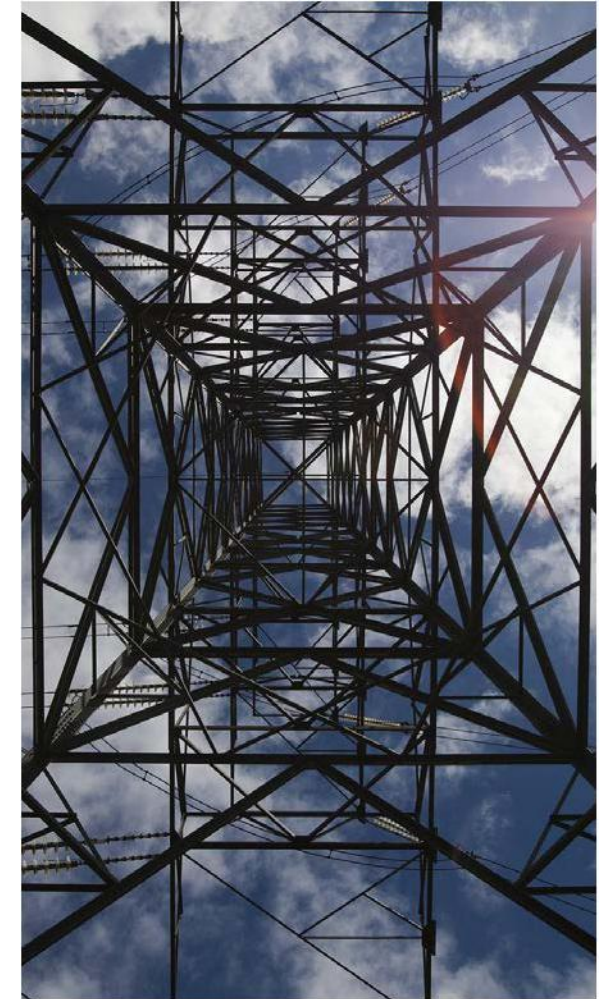
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|  |          | <b>Reconductoring Area</b> .....                  | <b>15</b> |



#### 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.

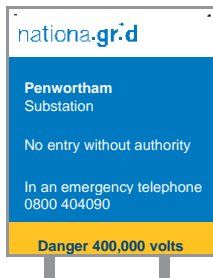
The scope of the report covers information on basic safety and the location of our assets – and also highlights key issues around particular types of development and risk areas.

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](mailto: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](mailto:assetprotection@nationalgrid.com)  
Phone: 0800 001 4282

### Electrical clearance from overhead lines

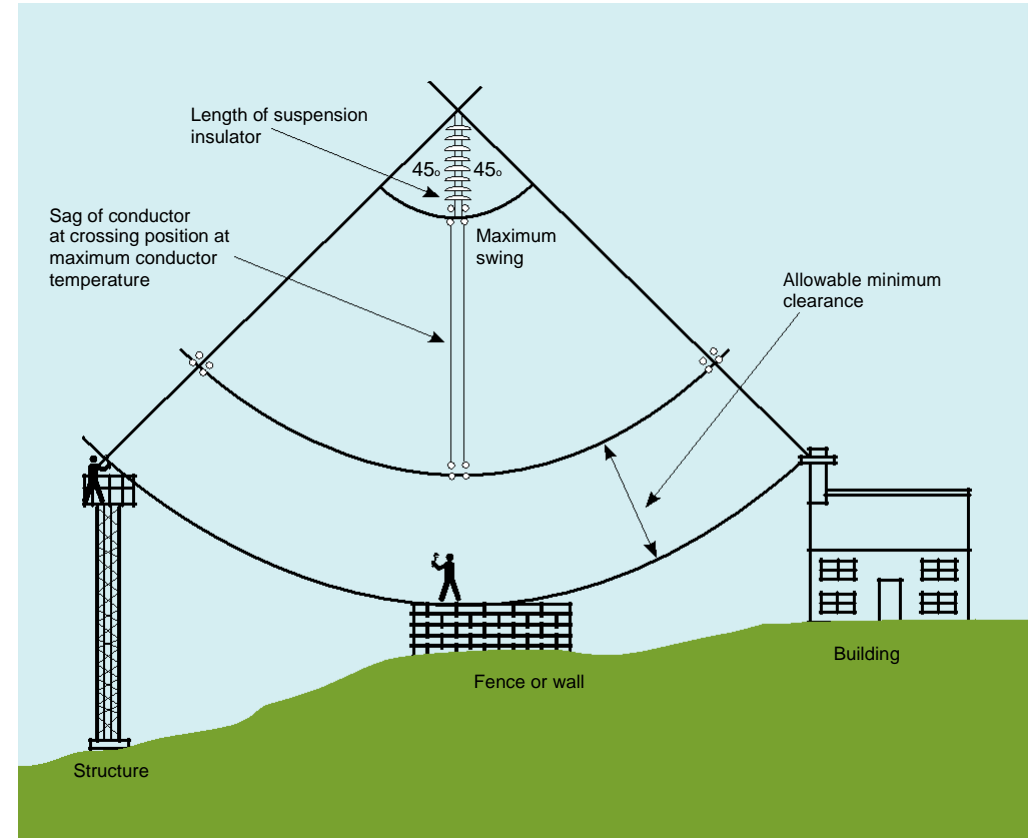
The clearance distances referred to in this section are specific to 400kV overhead lines. National Grid can advise on the distances required around different voltages i.e. 132kV and 275kV.

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

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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.

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.

### 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

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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### 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.

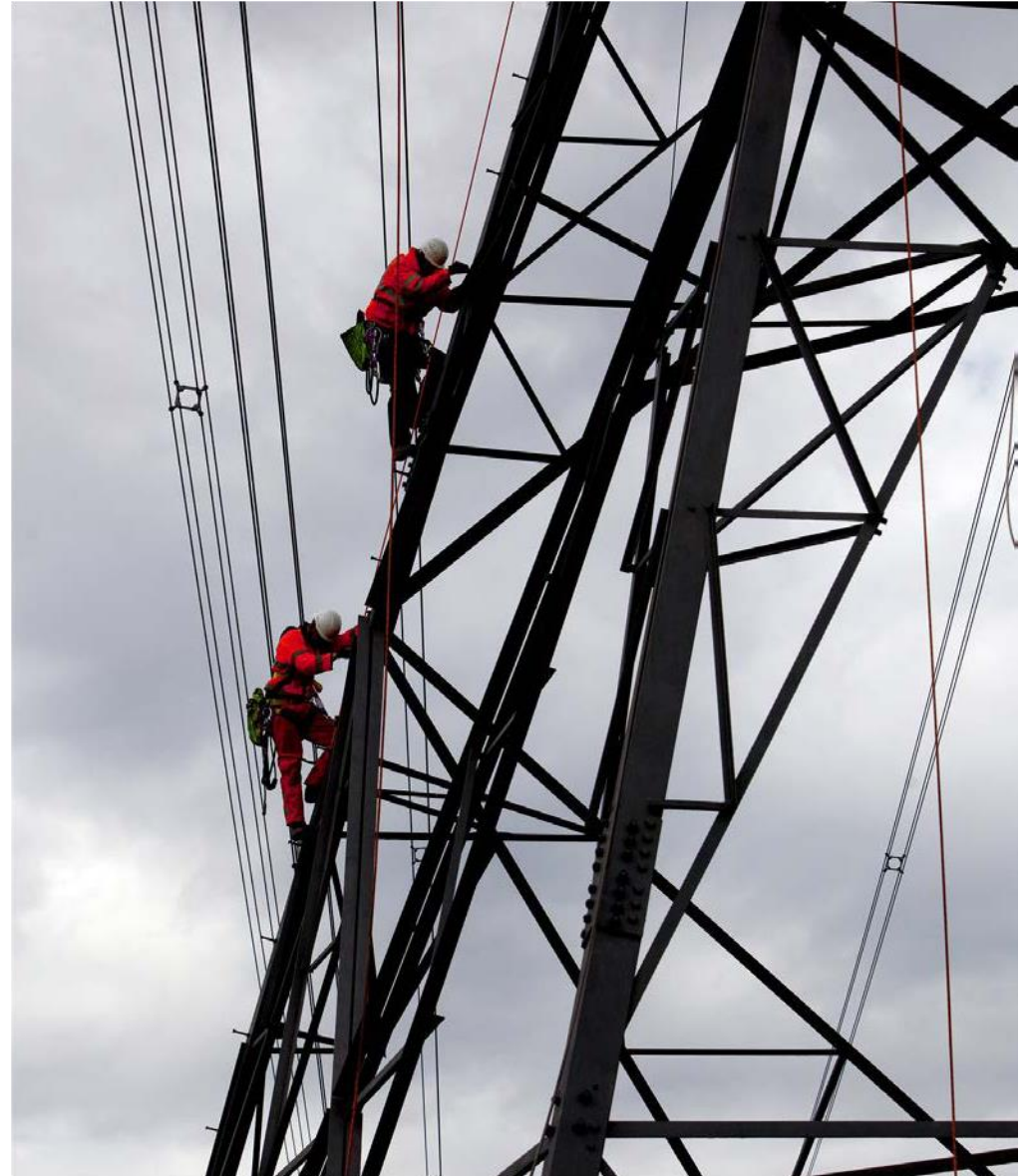
### Maintenance access

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*

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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 layed 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](http://www.emfs.info).



# 200m

*The minimum distance that should be maintained from National Grid assets when quarry blasting*

## 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.

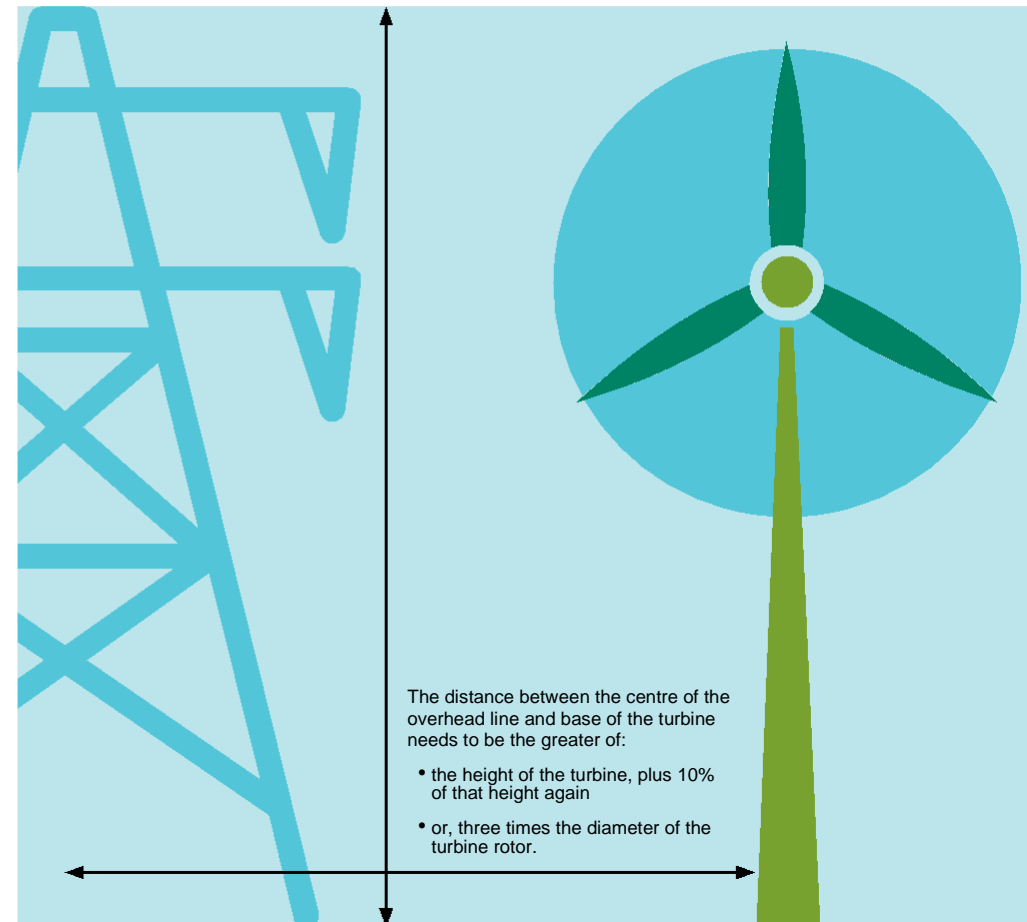
### Commercial and housing developments

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.

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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.

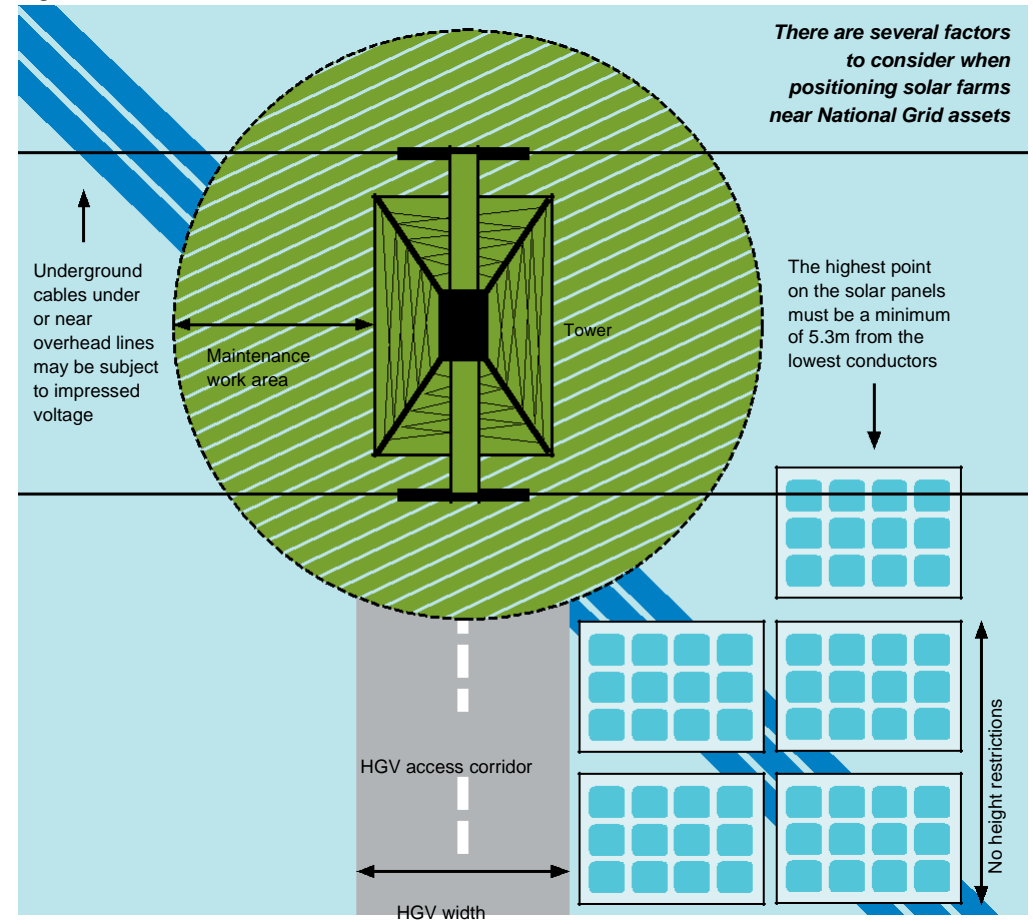
Solar panels that are directly underneath power lines risk being damaged on the rare occasion that a conductor or fitting falls to the ground. A more likely risk is ice falling from conductors or towers in winter and damaging solar panels.

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)<sup>1</sup>
- 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

<sup>1</sup> 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](http://www2.nationalgrid.com/contact-us) to find the appropriate information or call 0800 0014282.

### Routine enquiries

Email:  
[assetprotection@nationalgrid.com](mailto:assetprotection@nationalgrid.com)

Call Asset Protection on:  
0800 0014282

Opening hours:  
Monday to Friday 08:00-16:00

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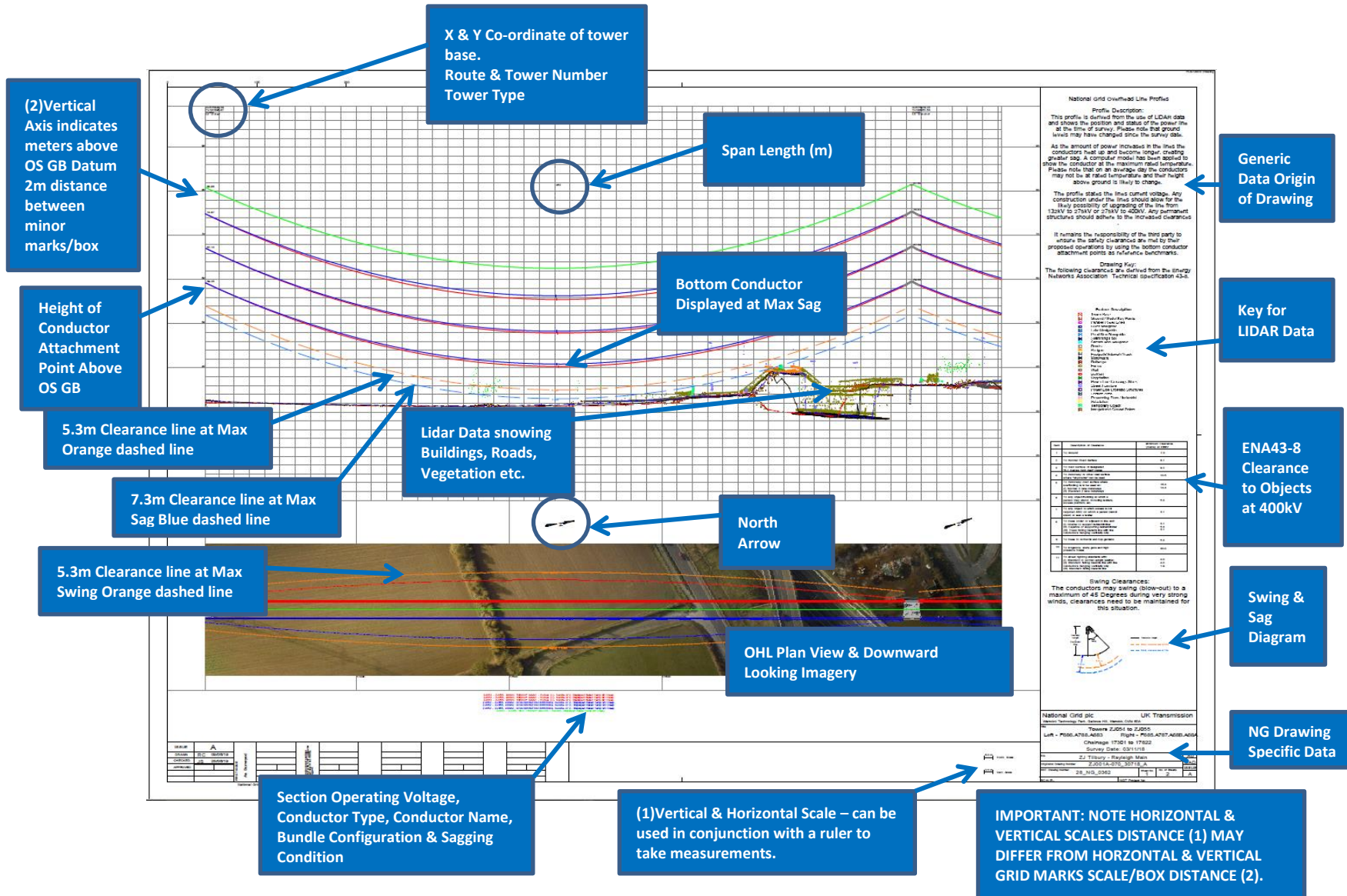
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# 14 APPENDIX A

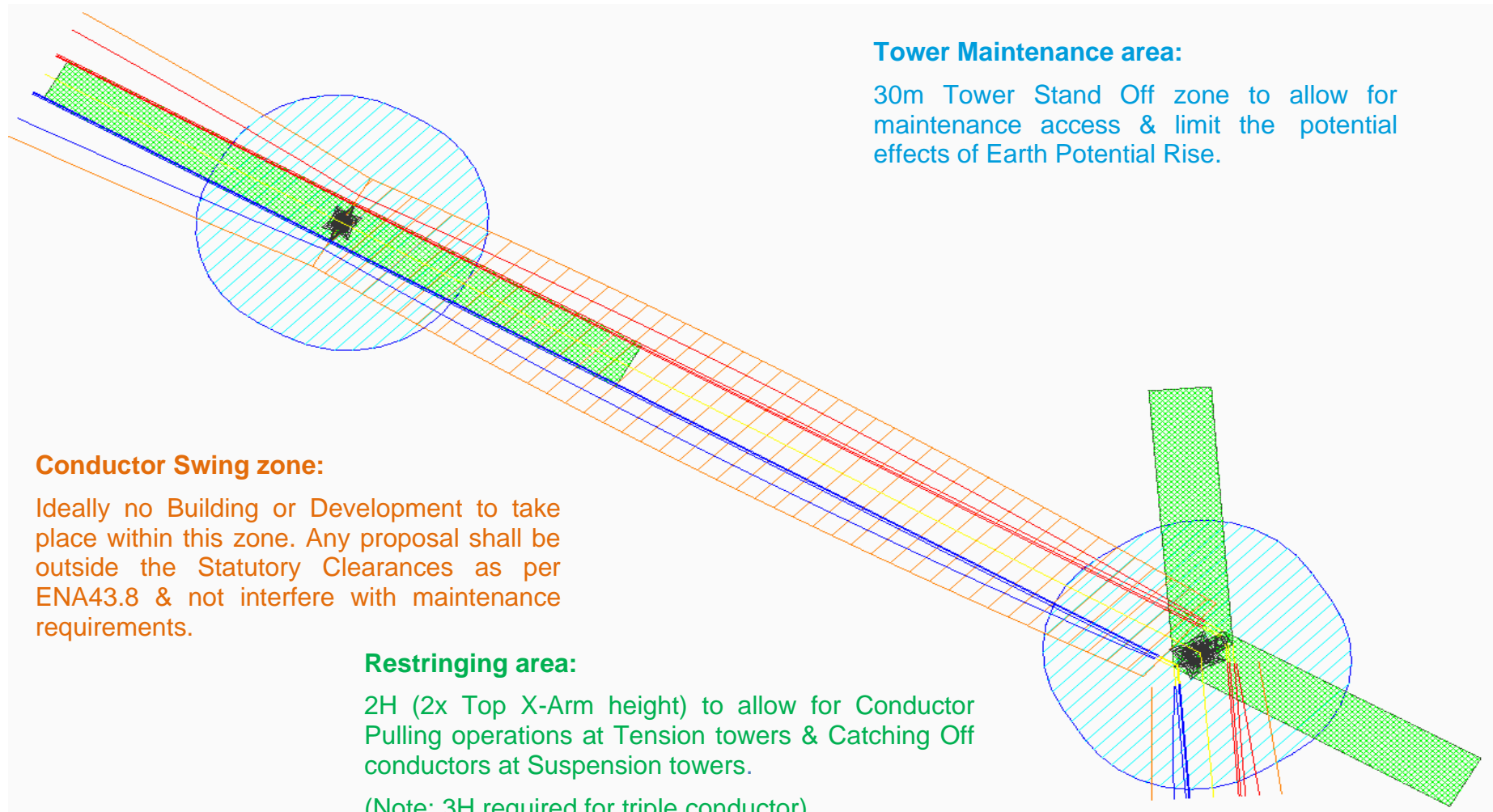


## OHL Profile Drawing Guide





## OHL Tower Stand Off & Reconducting Area





**NH ref:** NH/24/08565

Planning Inspectorate

Email: [whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)

Operations (East)  
National Highways  
Woodlands  
Manton Lane  
Bedford MK41 7LW

26 November 2024

## **National Highways Response to Environmental Impact Assessment Scoping Request for White Elm Solar Farm**

Dear Sir/Madam,

Thank you for consulting National Highways (NH) regarding the Environmental Impact Assessment Scoping Request for White Elm Solar Farm which has been provided to us in order to inform the Scoping Opinion to be prepared by the Planning Inspectorate. It is understood that the consultation closes on 26<sup>th</sup> November 2024.

NH has a vested interest in managing the Strategic Road Network (SRN) across the Suffolk region. In the case of the proposed development site the nearest link is at the A14 to the south. The A14 can be accessed via Wickham Road at 16km to the east of the draft order limits.

We have reviewed the relevant Scoping Request submitted in support of the White Elm Solar Farm and wish to make the following observations:

- We note that the peak construction year is 2027 and the operational year for assessment is 2029. The latter concurs with advice within DfT Circular 01/2022 for an opening year assessment.
- The report states in paragraph 11.6 that Appendix 13.1 shows the indicative access proposals. We have not been able to locate these, however we understand that a number of access points will be required to the local highway network. We would expect that all construction and operational traffic would flow between these access points and the key local route which is the A140.
- The A140 operates a single carriageway in each direction and has a number of existing junctions that could potentially be subject to traffic as a result of the proposals. We would nonetheless consider it to be a robust and likely assumption that all or the majority traffic associated with the proposals would access the SRN

at the A14 junction 51 to the south, unless otherwise demonstrated in the submission.

- We recommend that on the SRN, where junction movements exceed 30 vehicle per hour, junction assessments may be requested.

We have reviewed the proposals for scoping in accordance with the IEMA 2023 guidance and have no view to express on the scoping approach suggested. We look forward to engagement with the Applicant in relation to the ES including Construction Traffic Management Plan.

I hope that the above and attached is clear, if you need anything further, please do not hesitate to contact me.

Yours sincerely

Mark Norman

**Mark Norman**  
Spatial Planner  
National Highways  
Operations (East)

Date: 14 November 2024  
Our ref: 492317  
Your ref: EN0110003



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

Consultations  
Hornbeam House  
Crewe Business Park  
Electra Way  
Crewe  
Cheshire  
CW1 6GJ

T 0300 060 900

[whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)

## BY EMAIL ONLY

Dear Todd Brumwell

### **Environmental Impact Assessment Scoping Consultation under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulation 11**

**Proposal:** White Elm Solar Farm

**Location:** Land North East of Stowmarket, Suffolk

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 29 October 2024, received on the same date.

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.

For this development, in particular, Natural England highlights that the following issues require consideration within the EIA:

- Impacts of the development on designated nature conservation sites (see section 5 of Annex A)
- Impacts of the development on best and most versatile soil (see section 13 of Annex A)
- Impacts of air pollution from construction traffic on designated sites (see section 14 of Annex A).

Detailed advice on scoping the Environmental Statement is available in the attached Annex.

Natural England have been engaged by the applicant in Pre-Application discussions via our

Discretionary Advice Service. To date, advice relating to soils has been provided. Natural England will continue to engage with the applicant throughout the pre-application stages.

For any further advice on this consultation please contact the case officer  
[REDACTED]@naturalengland.org.uk and copy to [consultations@naturalengland.org.uk](mailto:consultations@naturalengland.org.uk).

Yours sincerely

Alice Canning Tye  
Norfolk and Suffolk Sustainable Development 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 Environmental Statement (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 provided
- 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

Based on Natural England’s engagement with the applicant to date, and 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.

| Project/Plan              | Status          |
|---------------------------|-----------------|
| Norwich to Tilbury scheme | Pre-application |

### 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](http://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](#).

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. Biodiversity and geodiversity

The assessment will need to include potential impacts of the proposal upon sites and features of nature conservation interest as well as opportunities for nature recovery through biodiversity net gain (BNG). There might also be strategic approaches to take into account.

Ecological Impact Assessment (EclA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. [Guidelines](#) and an [EclA checklist](#) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

### 5. Designated nature conservation sites

#### International and European sites

Natural England notes that the EIA Scoping Report states that no international designated sites were identified within 10km of the site (Paragraph 3.10).

However, Natural England agree that the eight international designated sites located within 30km of the site have been scoped in, as they have been identified as sites with qualifying mobile species (bats and/or migratory birds).



## **Nationally designated sites/Sites of Special Scientific Interest**

Natural England's SSSI Impact Risk Zones (IRZ) 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.

Natural England notes that the EIA Scoping Report states that three national designated sites for nature conservation were identified within 5km of the site. These designated sites are Gipping Great Wood SSSI, Mickfield Meadow SSSI and Major Farm, Braiseworth SSSI (Paragraph 3.11).

We agree that these three sites identified within 5km of the site have been scoped in, and advise that when considering impacts to designated sites, potential impact pathways can include:

- Impacts to water courses that may impact water quality/quantity through runoff or disruption of flow
- Impacts to functionally linked land for designated species
- Impacts to air quality from construction traffic in proximity to designated sites

### **6. 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 (paragraph 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. We advise the Applicant to contact the relevant local body for further information.

### **7. 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 has adopted [standing advice](#) for protected species, which includes guidance on survey and mitigation measures. A separate protected species licence from Natural England or Defra may also be required. Applicants should check to see if a mitigation licence is required using Natural England guidance on licensing [Natural England wildlife licences](#).

Where licence need is identified, applicants should make use of Natural England's [Pre Submission Screening Service](#) 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 Development Consent Order (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](#) for details of the LONI process.

## 8. 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

## 9. Ancient Woodland, ancient and veteran trees

The ES should assess the impacts of the proposal on the ancient woodland and any ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

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.

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.

Natural England and the Forestry Commission have prepared [standing advice](#) on ancient woodland, ancient and veteran trees.

## 10. Biodiversity net gain

The Environment Act 2021 includes NSIPs in the requirement for 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 does reference the inclusion of biodiversity net gain. However, there is no commitment to an increase value (i.e. 10%). Natural England would encourage the Applicant to commit to at least 10% Biodiversity Net Gain across habitat, river and hedgerow units, illustrated via the use of the [statutory biodiversity metric](#).

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 also recommend consultation with the Norfolk Wildlife Trust, and any other local bodies, who may be able to provide invaluable local knowledge to help steer the mitigation and enhancement proposed by the project.

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. The ES should make clear the project's contribution to ecological connectivity in the area, the Nature Recovery Network and climate change resilience.

## 11. Landscape

### Nationally designated landscapes

The development site is not within, or within proximity to, any nationally designated 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 (LI) and Institute of Environmental Management and Assessment (IEMA) 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 LI and IEMA. 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 for National Infrastructure - NIC](#) endorsed by Government in the National Infrastructure Strategy.

## **12. Connecting people with nature**

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 104 and there will be reference in the relevant National Policy Statement. 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.

## **13. Soils and agricultural land quality**

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 best and most versatile (BMV) agricultural land should be considered. Further guidance is set out in the Natural England [Guide to assessing development proposals on agricultural land](#).

The following issues should be considered and, where appropriate, included as part of the

ES:

- The degree to which soils would be disturbed or damaged as part of the development.
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any BMV agricultural land would be impacted.

This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see [www.magic.gov.uk](http://www.magic.gov.uk).

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform 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 ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. 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.

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 [Benefitting from Soil Management in Development and Construction](#).

#### 14. Air quality

The EIA Scoping Report has scoped in effects on air quality from construction traffic, Natural England concur with this view. Our advice is that any site within 200m of a road experiencing an increase of 1000AADT (or 200AADT for HDVs) is scoped in for consideration within the ES. For further advice on assessing the impacts of traffic on designated sites, we refer you to [Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations – NEA001](#).

Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg)<sup>1</sup>. A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NO<sub>x</sub> and SO<sub>2</sub> against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs which may be being developed or implemented to mitigate the impacts of air quality. Natural England advise that the proposed development does fall within the Breckland SNAP area. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System ([www.apis.ac.uk](http://www.apis.ac.uk)).

Information on air pollution modelling, screening and assessment can be found on the following websites:

- SCAIL Combustion and SCAIL Agriculture - <http://www.scail.ceh.ac.uk/>
- Ammonia assessment for agricultural development  
<https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit>
- Environment Agency Screening Tool for industrial emissions  
<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England <http://www.airqualityengland.co.uk/laqm>

## 15. Water quality

NSIPs can occur in areas where strategic solutions are being determined for water pollution issues and they may not have been factored into the local planning system as they are delivered through National Policy Statements.

The planning system plays a key role in determining the location of developments which may give rise to water pollution, and hence planning decisions can have a significant impact on water quality, and land. The assessment should take account of the risks of water pollution and how these can be managed or reduced. A number of water dependent protected nature conservation sites have been identified as failing condition due to elevated nutrient levels and nutrient neutrality is consequently required to enable development to proceed without causing further damage to these sites. The ES needs to take account of any strategic solutions for nutrient neutrality or Diffuse Water Pollution Plans, which may be being developed or implemented to mitigate and address the impacts of elevated nutrient levels.

## 16. Climate change

The ES should identify how the development affects the ability of the natural environment (including habitats, species, and natural processes) to adapt to climate change, including its ability to provide adaptation for people. This should include impacts on the vulnerability or resilience of a natural feature (i.e. what's already there and affected) as well as impacts on how the environment can accommodate change for both nature and people.

Part 2 of EN-1 covers the government's energy and climate change strategy, including policies for mitigating climate change. Section 4.10 sets out generic considerations that applicants and the Secretary of State should take into account to help ensure that energy infrastructure is safe and resilient to climate change. This section further advises that the resilience of the project to climate change should be assessed in the ES accompanying an application.

EN-1 sets out strong support for the use of Nature-based Solutions and nature inclusive design, for example:



- In preparing measures to support climate change adaptation applicants should take reasonable steps to maximise the use of Nature-based Solutions alongside other conventional techniques (4.10.5).
- In addition to avoiding further GHG emissions when compared with more traditional adaptation approaches, Nature-based Solutions can also result in biodiversity benefits and net gain, as well as increasing absorption of carbon dioxide from the atmosphere (4.10.7).
- Applicants should look for opportunities within the proposed development to embed nature-based or technological solutions to mitigate or offset the emissions of construction and decommissioning (5.3.6).
- Steps taken to minimise and offset emissions should be set out in a GHG Reduction Strategy, secured under the Development Consent Order. The GHG Reduction Strategy should consider the creation and preservation of carbon stores and sinks including through woodland creation, hedgerow creation and restoration, peatland restoration and through other natural habitats (5.3.7).
- The design process should embed opportunities for nature inclusive design (5.4.21).
- Applicants should consider any reasonable opportunities to maximise the restoration, creation, and enhancement of wider biodiversity, and the protection and restoration of the ability of habitats to store or sequester carbon (5.4.33).

In addition to delivering biodiversity net gain, developments may also deliver wider environmental gains and benefits to communities relevant to the local area, and to national policy priorities, such as:

- reductions in GHG emissions
- reduced flood risk
- improvements to air or water quality
- climate adaptation
- landscape enhancement
- increased access to natural greenspace, or
- the enhancement, expansion or provision of trees and woodlands.

The scope of potential gains will be dependent on the type, scale, and location of specific projects. Applicants should look for a holistic approach to delivering wider environmental gains and benefits through the use of Nature-based Solutions and Green Infrastructure.

Key Natural England resources that you may find useful include:

- [Carbon storage and sequestration by habitat: a review of the evidence \(second edition\)](#)
- [Climate Change Adaptation Manual](#): Evidence to support nature conservation in a changing climate -This contains the Landscape Scale Climate Change Assessment Methodology
- [Nature Networks Evidence Handbook](#)

**Patten, Jack**

---

**From:** Claire Curtis [REDACTED]@southnorfolkandbroadland.gov.uk>  
**Sent:** 25 November 2024 10:06  
**To:** White Elm Solar Farm  
**Subject:** EN0110003 – White Elm Solar Farm – EIA Scoping Consultation

**Categories:** EST

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

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 ELMYA RPC UK Grange Road Ltd (the Applicant) for an Order granting Development Consent for White Elm Solar Farm (the Proposed Development)**

**Environmental Statement (ES) Scoping Opinion**

Thank you for consulting South Norfolk Council and Broadland District Council regarding the scoping opinion for White Elm Solar NSIP project. I can confirm that we will not be commenting and wish to defer to the Host Local Authorities.

Yours faithfully

Claire Curtis

**Claire Curtis ( [REDACTED] )**

**Area Planning Manager and Nationally Significant Infrastructure Projects (NSIPs) Lead Officer**

t [REDACTED] e [REDACTED]@southnorfolkandbroadland.gov.uk



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**From:** White Elm Solar Farm <[whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)>

**Sent:** Wednesday, October 30, 2024 10:59 AM

**Subject:** EN0110003 – White Elm Solar Farm – EIA Scoping Consultation

**FAO Head of Planning**



Dear Sir/Madam

You are receiving this email in relation to correspondence you received yesterday (29 October 2024) regarding the proposed White Elm Solar Farm Scoping Report.

It has come to our attention that the Scoping Report for White Elm Solar Farm was unable to be published on the 'Find a National Infrastructure Project' website yesterday due to a technical error. This error has been resolved and the Scoping Report has now been published.

<https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN0110003>

As such, the deadline for comments from consultation bodies has been amended by one day. The new deadline is **27 November 2024**.

Kind regards,



**Neva Johnson** ( Nee-va | [REDACTED] )  
Associate EIA Advisor  
The Planning Inspectorate

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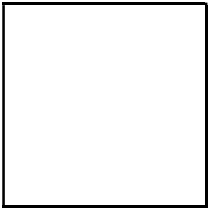
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DPC:76616c646f72



## **Patten, Jack**

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**From:** Lynne Cockerton [REDACTED]@btopenworld.com>  
**Sent:** 25 November 2024 14:52  
**To:** White Elm Solar Farm  
**Subject:** Your Ref: EN0110003 - Proposed White Elm Solar Farm, Suffolk

**Categories:** EST

Dear Planning Inspectorate

Stoke Ash & Thwaite Parish Council has considered the information relating to the proposed White Elm Solar Farm. On behalf of Stoke Ash & Thwaite villages our Parish Councillors categorically do not agree with the proposed solar farm.

kind regards  
Lynne Cockerton  
Clerk to Council



**White Elm Solar Farm**  
**EIA Scoping**  
**Comments of Suffolk County Council**

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## Introduction

- 1.1 These comments of Suffolk County Council (SCC) are in response to the EIA Scoping consultation held between the 29 October and 27 November 2024 by the Planning Inspectorate in respect of ELMYA RPC UK's White Elm Solar Farm Scoping Report.
- 1.2 The proposed development comprises of the construction, operation, maintenance and decommissioning of a grid connected solar PV generating station, along with a battery energy storage system (BESS) with an indicative development footprint of eight hectares, access, landscaping and associated development. The proposed development will connect to a new National Grid substation compound which is expected to be built within, or adjacent to, the order limits of this development. The site is 7.5 kilometres north of Stowmarket within the parishes of Mendlesham, Wickham Skeith and Thwaite and extends over 272 hectares of arable farmland. A map of the current order limits of the proposed development, showing the local context, is appended to this document in Appendix A.
- 1.3 This response contains the comments of SCC specifically on the question of the adoption of an EIA Scoping Opinion by the Planning Inspectorate and is not intended to make comments on the merits of the project itself. The response includes an introductory section, including SCC's Energy and Climate Adaptive Infrastructure Policy, followed by some general comments on ELMYA RPC UK's approach to scoping for its White Elm Solar Farm project, then identifies key issues in overview, and then followed by specific detailed topic-based comments.
- 1.4 The SCC electoral divisions directly affected are as follows:
  - Hartismere
  - Thredling
  - Upper Gipping

### **SCC Energy and Climate Adaptive Infrastructure Policy**

- 1.5 SCC adopted its Energy and Climate Adaptive Infrastructure Policy in May 2023, setting out its overall stance on projects required to deliver the UK's Net Zero ambitions. The policy is relevant for the SCC's position on the White Elm Solar Farm proposals, and states:
- 1.6 "Suffolk County Council has declared a Climate Emergency and is therefore predisposed to supporting projects that are necessary to deliver Net-Zero carbon and climate adaptation for the UK. However, projects will not be supported unless the harms of the project alone, as well as cumulatively and in combination with other projects, are

adequately recognised, assessed, appropriately mitigated, and, if necessary, compensated for.”<sup>1</sup>

- 1.7 SCC will follow this approach in this response, and throughout the subsequent DCO process.
- 1.8 SCC considers it essential that an effective Planning Performance Agreement (PPA) is agreed with the Applicant. Its Energy and Climate Adaptive Infrastructure Policy states:
- 1.9 “The Council will expect developers to engage in effective pre-application discussion with the Council. The Council expects that the costs of its engagement throughout the consenting process will be covered under the terms of a Planning Performance Agreement. This will be on a full cost recovery basis, to ensure that local services, and local taxpayers, are not disadvantaged financially by the Council’s engagement with project promoters.”
- 1.10 Further details on the position SCC adopts in relation to PPAs can be found in its published guidance for project promoters.<sup>2</sup>
- 1.11 SCC continues to be willing to work with ELMYA RPC UK through the issues, towards improvement of the proposals and required mitigations, and looks forward to further engagement over the coming months.
- 1.12 SCC has also published a Supplementary Guidance Document<sup>3</sup> for its Energy and Climate Adaptive Infrastructure Policy which gives specific guidance for developers of solar farms, following SCC’s experience with such NSIPs, which the Applicant is encouraged to consult. The document contains guidance on the roles of the developer and authorities, how they should interact and how SCC expects solar-specific issues to be handled by the Applicant.

## General Comments

- 2.1 SCC appreciates that the Applicant is a commercial entity and so has swiftly published this scoping report. However, SCC would have appreciated being consulted during the drafting process of this report to ensure that its key concerns could have been addressed by this point by changes being made to the Applicant’s approach to the report in certain ways.

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<sup>1</sup> See SCC Energy and Climate Adaptive Infrastructure Policy: <https://www.suffolk.gov.uk/asset-library/energy-and-climate-adaptive-infrastructure-policy.pdf>

<sup>2</sup> See Suffolk County Council’s expectations for Planning Performance Agreements (PPAs) for Nationally Significant Infrastructure Projects (NSIPs) – Guidance for project promoters: <https://www.suffolk.gov.uk/asset-library/planning-performance-agreements-for-nationally-significant-infrastructure-projects.pdf>

<sup>3</sup> Energy and Climate Adaptive Infrastructure Policy Large scale solar schemes Supplementary Guidance Document: <https://www.suffolk.gov.uk/asset-library/scc-policy-large-scale-solar-booklet.pdf>

## Key Issues

- 3.1 This section sets out extracts that highlight some of the key issues that arise out of the scoping consultation. This section must be read in conjunction with the remainder of this document which provides the full response from internal consultees.

## Timescale

- 3.2 SCC notes that the construction stage for the project, if constructed as a single phase development, is expected to last between 16 and 24 months (para 2.26 of the Scoping Request), that this would need to be followed by testing and commissioning (para 2.30), that the peak construction year is expected to be 2027 (para 11.7), and that the development is expected to be operational by 2029 (para 11.8). However, according to the information that the Applicant has supplied to the Planning Inspectorate (PINS), the application is not expected to be submitted to PINS until July to September 2026. Assuming that timetable is achieved and assuming that the application is accepted by PINS, no decision on that application is likely before the end of 2027 under the current timetable for decisions on applications made under the Planning Act 2008 regime.
- 3.3 SCC notes that the Applicant is reliant on a third party (National Grid Electricity Transmission) for the construction of the 400kV substation that will be needed to connect the solar farm to the National Grid, which will be a separate project progressed via the Town & Country Planning Act 1990 regime (para 2.44). SCC also notes from the PINS register of section 51 advice that PINS was informed by the Applicant at an inception meeting in June 2024 that the Applicant's connection offer had an estimated connection date for 2031. SCC is therefore unclear as to the basis for an assumption of peak construction in 2027 or for the project being operational by 2029. This will have implications for various aspects of the environmental assessment of the project which are sensitive to the temporal periods when effects may be experienced (such as traffic and transport, noise, and air quality). There may also be implications for the cumulative assessment with other projects, in particular as regards overlapping construction periods. SCC would expect to see a realistic and deliverable construction programme and an expected date for an operational connection to the National Grid to be provided by the Applicant to inform all relevant aspects of the EIA. It should be noted that if the Applicant plans on connecting to the Yaxely substation instead, then appropriate changes to the order limits, relevant assessments and mitigation will need to be made.

## Cumulative Effects

- 3.4 SCC is conscious that a significant number of renewable energy and other large scale infrastructure projects are either under construction or are being proposed in Suffolk, including within the general vicinity of the



location of the proposed White Elms Solar Farm. A map of both consented and proposed NSIPs affecting Suffolk is attached to this document as Appendix B. SCC notes that the Applicant proposes to address cumulative effects on a topic by topic basis in the individual chapters of the ES, and SCC has no 'in principle' issue with that approach. However, SCC notes that the description of cumulative effects in the Scoping Request (para 4.26) appears to focus only on inter-project effects and there is no explicit consideration of intra-project effects. SCC expects to see all intra-project effects included as part of the EIA. SCC is also concerned that the Applicant proposes to limit its identification of projects for cumulative assessment to the period up to the point of submission of the application (para 4.29). Whilst SCC can accept that for the ES it is necessary to have a cut-off date, the need to keep the list of other projects (and their status) under review should continue during the currency of the application, if necessary by the provision of updates to the submitted environmental information.

### **SCC Archaeology**

- 3.5 The proposed solar development cannot be assessed or have permission granted until a full programme of archaeological evaluation has been undertaken. All archaeological, heritage and landscape assessments should be undertaken prior to the submission of the EIA. These assessments should include thorough trenched archaeological evaluation to ensure the archaeological resources are fully understood and appropriate mitigation can be put in place. Failure to do so could lead to significant problems during development, including delays, cost increases and destruction of archaeological assets. The results of this work will enable an accurate review of the archaeological resource, providing information on the significance, character and extent of the archaeological heritage assets within the proposed development area. This is in accordance with NPS EN-1 (5.9.9 – 5.9.15) and EN-3 (3.10.105).
- 3.6 Early archaeological evaluation is strongly encouraged as this will allow adequate assessment of options regarding preservation of sites of importance and mitigation.

### **SCC Ecology**

- 3.7 Any destruction or damage to existing habitats resulting from each phase of development must be adequately assessed, mitigated for and enhanced to demonstrate that no significant adverse impacts will occur.
- 3.8 Multiple species, including reptiles, birds, badgers and others may settle into newly established, high-quality habitats created on the site, and so may require appropriate assessment and mitigation measures which should be secured in the LEMP. Any newly created habitats should be safeguarded beyond the decommissioning of this project as far as possible and all opportunities to continue beneficial management of these sites should be explored and secured in a similar manner.

- 3.9 Whilst not yet required for this type of development, SCC still expects principles of BNG to be incorporated into this project so that it is in line with near-future legislation and in the likelihood that it will soon become a requirement.

### **SCC Economic Development, Tourism and Skills**

- 3.10 Adopting SCC's Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance will enable White Elm to create a comprehensive, responsive assessment, SCC expects White Elm's assessment to focus on the following elements:
- Detailed Baseline and Existing Socio-Economic Environment
  - Strategy and Policy Review
  - Comprehensive Supply Chain Assessment
  - Education and Training Infrastructure
- 3.11 SCC makes several recommendations for the Applicant to adjust the methodology of its socio-economic assessments, particularly regarding workforce and supply-chain analysis so that potential issues are identified in advance and can be responded to accordingly. SCC's comments are also designed to ensure that economic benefits for Suffolk are maximised. Potential impacts resulting from the workforce itself should also be considered to ensure that the public interest is properly safeguarded.
- 3.12 SCC is in the process of publishing a Supplementary Guidance Document for its Energy and Climate Adaptive Infrastructure Policy on the topic of skills and workforce, which is informed by its previous experience with similar projects. This guidance is designed for the use of developers so that their socioeconomic engagement is effective. SCC strongly encourages the Promoter to consult this document when planning its socioeconomic activities. The guidance is currently in draft form and is attached to this document as Appendix C.

### **SCC Floods**

- 3.13 The current level of flood risk assessment is not exhaustive, with several types of risk being omitted. A detailed flood risk assessment, surface water drainage strategy and a method statement for watercourse crossings should be including within the DCO. Several separate surface water drainage systems will likely be needed for different components of the project.

### **SCC Health – Community Wellbeing**

- 3.14 A dedicated chapter of Human Health is strongly encouraged to ensure the intersectional impacts of other effects of this project with human health and wellbeing can be understood in conjunction with each other, and so can be evaluated in terms of their cumulative effects. This chapter should include an exhaustive array of potential impacts which

go beyond what is captured in technical assessments. See detailed comments below for SCC's full guidance on the drafting of this chapter.

### **SCC Highways**

- 3.15 The key issues for SCC in terms of highways are substation access, AIL & HGV movement and consultation. SCC is concerned that another two substations will be built in the rural location of the project with poor highway infrastructure, in addition to the existing Yaxley substation. SCC strongly recommends improvement to, or creation of, access roads to reach the substations.
- 3.16 Delivery of AILs is another issue which concerns SCC due to recent experiences in which unnecessary negative impacts were caused, as well as an increasing number of upcoming projects which require the movement of AILs within Suffolk which could cause cumulative impacts. AIL routes should be decided in consultation with SCC far in advance of any delivery to ensure the suitability of the route and to minimise potential impacts on local communities.
- 3.17 SCC is disappointed that it has not been consulted on the scoping report as the Local Highways Authority. There are several changes recommended by SCC regarding what potential impacts should be scoped in or out in the relevant section of the detailed technical comments.

### **SCC Landscape**

- 3.18 SCC is not currently satisfied that the outline LVIA Methodology will be adequate or acceptable because (as explained in its detailed comments) SCC has several queries and reservations about the proposed approach, which need to be addressed and resolved. Further detail will need to be provided by the Promoter. This is set out in the detailed technical comments and includes full listings of data sources considered, definitions of terms and assessment categories, viewpoints assessment and visual representation. etc. With regards to scoping SCC considers that the following should be scoped into the assessment:
- The relation of landscape and visual matters to other topic areas.
  - Accurate baseline surveys for trees and hedgerows within and adjacent to the DCO limits (in accordance with the current version of BS 5837 Trees in relation to design, demolition, and construction and the Hedgerow Regulations 1997) and an assessment of the impacts on the fabric of the landscape.
  - Effects of all elements of the scheme, including cable corridor and grid connection point (substation).
  - Effects during construction, operation, and decommissioning. This needs to include all impacts and effects resulting from temporary

and pre-commencement works, such as the provision of accesses and internal haul roads.

- Nighttime effects (including any lighting, noise etc.)
- Intra- and inter- cumulative effects and

3.19 SCC further considers that some flexibility needs to be retained regarding the scoping in/out of assessment of effects beyond the study area or SZTV (both of which need to be further justified), as there may be effects and receptors that may warrant assessment in these locations.

3.20 SCC expects that the Mitigation Hierarchy will be applied in full and that this will be reflected and anchored in the design principles and layout of the scheme. Mitigation planting will need to be commensurate with the requirements for effective mitigation of adverse landscape and visual effects resulting from the scheme. SCC expects that the Applicant will demonstrate how the project will meet local landscape and design policy requirements.

3.21 Appropriate aftercare and long-term management of mitigative planting will need to be provided and secured through measure that that clearly set out in control documents, such as the outline and detailed Landscape and Ecology Management Plan (oLEMP and LEMP)

### **SCC Public Rights of Way**

3.22 SCC's position is that the impacts on PRoW are a topic in their own right and should not be solely considered as an element of other topic areas. Considering PRoW over a number of topic areas will cause the assessment to become fragmentary and will not reflect the true impact on users of the PRoW network. Moreover, an evaluation of cumulative impacts on PRoW in Suffolk may be omitted if there is not a dedicated chapter on PRoW. Therefore, a separate PRoW Chapter is required as per other topic areas. This section of the detailed technical comments includes recommended changes to the Applicant's approach to assessing impacts on PRoW which could be incorporated into a dedicated chapter on the subject.

### **Detailed Technical Comments**

#### **SCC Archaeology**

3.23 The proposed solar development cannot be assessed or have permission granted until a full programme of archaeological evaluation has been undertaken. All archaeological, heritage and landscape assessments should be undertaken prior to the submission of the EIA. The results of this work will enable an accurate review of the archaeological resource, providing information on the significance, character and extent of the archaeological heritage assets within the

proposed development area. This is in accordance with NPS EN-1 (5.9.9 – 5.9.15) and EN-3 (3.10.105).

- 3.24 This is also set out in The Infrastructure Planning (Environmental Impact Assessment) regulation 2017 which states that “the EIA must identify, describe and assess in an appropriate manner...the direct and indirect significant impacts of the proposed development on...material assets, cultural heritage and the landscape” (Regulation 5(2d)).
- 3.25 SCC would like to take this opportunity to highlight that the impacts of the proposed solar farm will be considerable and we would strongly recommend that archaeological evaluation is undertaken at the earliest opportunity to allow the work to be completed and the results to be available in good time to inform the baseline information and allow an appropriate mitigation strategy to be designed, agreed and presented within the EIA.
- 3.26 Trenched archaeological evaluation is required as ground truthing the results of the geophysical survey is essential to inform understandings of the archaeological potential of the site, as well as the significance of archaeological heritage assets, which will enable an appropriate mitigation strategy to be defined. Having this information at an early stage is also essential for effective risk management, project management, programme scheduling and budget management.
- 3.27 Any unevaluated areas of unknown archaeological potential leave a high degree of risk to the development. 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 and which have the potential to leave a scheme which is undeliverable.
- 3.28 Any areas that are not subject to trenched archaeological evaluation prior to the determination of this application would carry a high level of risk which will need to be accommodated by incorporating flexibility in the design, work schedule and budget. Therefore, it is strongly recommended that sufficient trenched archaeological evaluation is undertaken across the full redline area to provide essential baseline information on the archaeological resource to inform and design an appropriate mitigation strategy. Any parts of the proposal area which are scheme critical, or where limited design flexibility will be possible, are a particular priority for early assessment.
- 3.29 Early archaeological evaluation will ensure that all options can be properly considered, including provision for preservation in situ of any sites of importance which may be defined (and which are currently unknown). The results of the archaeological evaluation will be used to develop an appropriate mitigation strategy for the site, which must be discussed and agreed with SCCAS.

- 3.30 The resulting EIA should include proposals to record and advance the understanding of the significance of archaeological heritage assets before they are damaged or destroyed. Additionally, the results of the archaeological evaluation may identify areas where preservation in situ may be an appropriate form of mitigation.
- 3.31 The EIA should also provide proposals for public outreach and methods to enhance public understanding of the development and heritage.

**SCC Ecology**

- 3.32 In response to Chapter 7, Nature Conservation and Biodiversity, of the White Elm Solar Farm Ecological Impact Assessment Scoping Request (October 2024), Suffolk County Council has the following comments:
- 3.33 Desk study: the extents and list of consultees included within the desk study appears appropriate for the purposes of this assessment. The records and information gathered within the desk study must be updated as appropriate prior to future works, in order to have up to date data and assessment of the presence and extent of designated sites, habitats and species populations and avoid negative impacts. Throughout a 40-year operational phase, multiple updates would be expected as habitats within (and potentially around) the site change and mature. In particular, an updated, full suite of records would be required prior to decommissioning to inform those works.
- 3.34 Designated sites: the distances and selection of designated sites included within the scoping process is considered appropriate for this development. As described above, the extent of these and any newly designated sites would need to be checked and reassessed accordingly to ensure future operation and decommissioning impacts were sufficiently mitigated.
- 3.35 Existing habitats: there is an expectation that any damage or destruction of habitat within any phase of the development will be mitigated in terms of the quality of the habitat, its constituent species and its ecological function within the landscape. All of these would need to be mitigated for and enhanced. The assessment and mitigation of this will need to be sufficiently detailed to demonstrate no significant negative impacts would occur.
- 3.36 Created habitats: the habitats which would be newly created on site and detailed, regarding composition and management, within the LEMP need to be demonstrably relevant to the local area and of the highest quality achievable on this site whilst allowing the development to operate functionally. For example: seed mixes used to establish grasslands should be of local provenance and reflect appropriate species-rich communities typical of high-quality examples within the local area. Management of these habitats would need to ensure that the establishment and persistence of key species, communities and structure was maintained.

- 3.37 Species: the scope of species included within the report and included within survey effort seems appropriate for this development. The scoping out of Hazel Dormouse at the construction phase seems reasonable given the records for the area and habitats present on and near to the site. However, given the longevity of the operational phase there is potential for species to spread to and colonise the site over this period. A contingency for the presence of this species during operational and decommissioning phases would be welcomed. Similarly, whilst no reptile survey has been undertaken to date, (due to the limitations of current habitat) proposed habitat enhancements are likely to result in high quality habitat for this group being created within the site and therefore reptiles may need a greater level of mitigation during operational and decommissioning phases and acknowledgement of this potential would be welcomed within the assessment. In addition to reptiles, breeding birds, great crested newt, badger, important invertebrates, “other mammals” and plants may all establish in the site as newly created habitats mature and any assessment and LEMP should include suitable consideration for their occurrence and outline mitigation measures for the operational and decommissioning phases accordingly.
- 3.38 BNG: SCC recognises that at the time of writing the provision of BNG is not required for a development of this type, however, SCC would expect the proposals to incorporate the principles of BNG and provide a significant habitat enhancement in line with the principles of the legislation and in the likelihood that it will become a requirement in the near future.
- 3.39 Legacy: the habitat enhancements designed to occur on the site and outlined in a LEMP must be safeguarded beyond the decommissioning of the solar farm, to the fullest extent possible. BNG plans have a lifespan of 30 years, but this should not be the limit placed on the habitats in this site. The plan should be extended to cover the full period of the operation of the site and all opportunities to continue beneficial management of these habitats should be explored and secured beyond decommissioning and outlined within the EIA.

### **SCC Economic Development, Tourism and Skills**

- 3.40 Suffolk County Councils (SCC) Economic Development, Tourism and Skills recommendations aim to strengthen White Elm’s socio-economic assessment by applying SCC’s Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance. Principally introducing phase-specific workforce and supply chain insights, applying evidence-led probability scenarios, and addressing any indirect and cumulative impacts. It is important to highlight that the findings of the assessment will inform transport modelling, accommodation and housing, provision of local services, including but not limited to health and public protection.

- 3.41 Adopting SCC's Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance will enable White Elm to create a comprehensive, responsive assessment, SCC expects White Elm's assessment to focus on the following elements:
- Detailed Baseline and Existing Socio-Economic Environment
  - Strategy and Policy Review
  - Comprehensive Supply Chain Assessment
  - Education and Training Infrastructure
- 3.42 Determining the anticipated geography from which the workforce will be drawn: Suffolk County Council (SCC) appreciates White Elm's proposal for defining socio-economic impact areas, which cover local, regional, and national contexts. The primary, secondary, and comparator zones provide a structured approach to understanding socio-economic impacts. For example, White Elm's identification of Mid Suffolk District as the Primary Impact Zone is broadly appropriate, given the project's location and the anticipated concentration of direct effects within this area. However, it is important that a more detailed, phase-specific workforce analysis is conducted. SCC's recommendations to enhance the effectiveness of the assessment framework (and supply chain integration) are:
- Assess the workforce inputs by phase, skills and duration
  - Using the workforce assessment, define an economic study area for workforce, considering the following:
    - The propensity for travel, availability of public transport and the local road network, preferred method of travel to work, correlation to Traffic and Transport methodology
- 3.43 Identifying skills and labour force effects during project phases (construction, operation, decommissioning): SCC acknowledges White Elm's identification of key socio-economic effects across construction, operational, and decommissioning phases. While supportive of this focus, SCC provides the following comments and recommendations to enhance the assessment's robustness and to maximize the socio-economic benefits for the Suffolk community. These steps will help understand the potential of local workforce participation, providing SCC with data to address skills gaps and labour needs more strategically.
- Identify the size and details of home-based employment opportunity using the newly assessed geography and workforce phases from point 1 above.
  - Use our recommended low, medium high probability framework to assess home-based employment opportunity.



- 3.44 Identify Supply Chain effects during construction, operation and decommissioning:  
A comprehensive, scenario-based approach to supply chain impacts is necessary to assess local businesses' ability to meet the project's requirements and compete for contracts. This approach will support Suffolk's economic growth by promoting local business participation and minimizing supply chain displacement risks. SCC expects White Elm to:
- Apply a scenario-based supply chain framework, using probability scenarios to evidence the supply chain opportunity across all elements of the project, factoring in the cumulative impacts with other projects.
  - Identify phase-specific supply chain needs, produce an assessment that identifies the distinct supply chain opportunities by work phase, and identifies local businesses with the can deliver the service or goods sought, and the likelihood of these businesses being able to take up an opportunity to compete for this work.
- 3.45 Additional Commentary - Regional Skills Coordination Function: SCC recommends White Elm work closely with SCC's Regional Skills Coordination Function and Local Authorities' skills and economic functions to ensure data is relevant and up to date. This collaboration will support a more precise socio-economic analysis aligned with Suffolk's unique conditions.
- 3.46 Impacts to be scoped in or out: SCC supports the inclusion of employment and economic contribution impacts for construction, operation, and decommissioning phases, given their relevance to Suffolk's socio-economic objectives.
- 3.47 White Elm's proposal to scope out housing supply impacts, based on the assumption that construction and decommissioning workers will use Serviced and Non-Serviced Accommodation instead of local residential dwellings, raises concerns. SCC recommends further consideration of potential housing impacts for the following reasons:
- Indirect Pressure on Local Housing: Although the project intends to utilise serviced and non-serviced accommodation, indirect impacts could still arise. For example, higher demand for temporary accommodations might drive up prices, indirectly influencing affordability for residents or other local projects requiring similar accommodations.
  - Potential Influx During Peak Phases: During peak construction or decommissioning phases, demand for serviced accommodation may increase, particularly if other NSIPs are underway in Suffolk. This could exacerbate pressure on the local housing market, especially in nearby towns and villages with limited accommodation options.

- To ensure a robust assessment, SCC recommends retaining housing supply impacts within the scope but focusing on indirect and cumulative impacts. This would align with SCC's commitment to monitoring and mitigating potential displacement effects on local residents and ensuring affordable housing availability remains unaffected.

3.48 Please refer to Suffolk County Councils Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance in Appendix C.

### **SCC Emergency Planning**

3.49 SCC Emergency Planning have no comments to make.

### **SCC Fire Service**

3.50 In response to Chapter 15, Other Environmental Topic, of the White Elm Solar Farm Ecological Impact Assessment Scoping Request (October 2024), in relation to 'Fire', Suffolk Fire and Rescue Service has the following comments;

3.51 The choice of site and the associated safety measures should account for the impact that an incident on the site could have on the local environment. Taking into account all sensitive receptors within a 1km radius.

3.52 An analysis of fire gas plume modelling under different scenarios will help to understand the impact on local communities from prevailing wind etc.

3.53 Consideration should be given, within the site design, to the management of water run-off (e.g. drainage systems, interceptors, bunded lagoons).

3.54 The Applicant's contention that the project does not fall within the requirements of the COMAH Regulations (para 15.7 of the Scoping Request) should be justified, having regard to the inclusion of a sizeable component of Battery Energy Storage System (BESS) provision, and the requirements of the Hazardous Substances Consent regime should be addressed if applicable.

### **SCC Floods**

3.55

3.56 The scope only covers fluvial and pluvial flood risk, no reference of groundwater, reservoir, foul etc flood risk. Baseline flood data and maps should be included in the EIA.

3.57 A detailed flood risk assessment, surface water drainage strategy and a method statement for watercourse crossings can then be submitted as part of the DCO.

3.58 LLFA has standing advice on Solar/PV farms and how to manage flood risk and surface water drainage. Due to the scale of this proposed development, it is likely that that the BESS, substation and access

roads will need to have their own surface water drainage systems utilising above ground open SuDS that meet the four pillars of SuDS (Quantity, quality, amenity, and biodiversity).

- 3.59 Land Drainage Act Consents should not be included within the DCO and shall be submitted post decision.
- 3.60 The LLFA would like more detail on the preparation of the site (i.e. installing the cabling, panel frames, etc.) and how the landscape changes affect surface water run off and the natural drainage of the soil.

### **SCC Health - Community Wellbeing**

- 3.61 SCC Public Health & Communities make the following observations: -
- 3.62 **Methodology** – the EIA does not include a Chapter on Human Health
- 3.63 We note Paragraph 15.19 that states ‘potential effects to human health as a result of the project will be discussed through the findings of other technical assessments undertaken as part of the EIA process’.
- 3.64 The project could feasibly pose significant or multifaceted health risks with impacts that go beyond those captured in technical assessments (e.g. mental health/emotional wellbeing, social cohesion, access to infrastructure including healthcare, consequences of cumulative impacts of the proposal with other existed NSIP’s in the area). If health impacts are simply cross-referenced within individual chapters, there may be gaps in understanding how cumulative impacts (e.g. from noise, air, traffic, etc.) collectively influence human health. On this basis, we suggest a dedicated Human Health chapter should be included (Paragraphs 3.37 to 3.69).
- 3.65 The Human Health chapter should assess health significance, conditions and allow a more comprehensive evaluation of impacts, especially on vulnerable or sensitive groups, to include communities near the site, and the workforce. Some potential inclusions:-
- 3.66 **Baseline data:**
- 3.67 Health status including physical, mental, and wider (aka social) determinants. Data on accessibility to healthcare services, education settings, and the prevalence of vulnerable groups, such as older people, children & young people, and those with long term health conditions.
- 3.68 Baseline data should pay regard to JSNA, ONS, Place Based Needs Assessments, Core20Plus5, local insight data from Healthy Suffolk and Suffolk Observatory.
- 3.69 **Cumulative Impact Assessment:**
- 3.70 Health impacts from cumulative exposure to multiple stressors (e.g. combined effects of noise, air pollution, and social disruption), which can interact in ways that increase their impact on community health.

- 3.71 Cumulative effects of this NSIP in combination with the development of the Norwich to Tilbury scheme and/or other NSIP's relevant to the area with respect to the temporal and spatial overlaps.
- 3.72 **Mental Health and Wellbeing:**
- 3.73 Consider impacts of prolonged exposure to construction activities, changes in the local landscape, or perceived risks related to proximity to the project (creating stress and anxiety).
- 3.74 Examine potential impacts on mental health and wellbeing, including possible long-term effects on community cohesion, sense of place, and access to recreational spaces and community facilities (e.g. health care, education, green spaces, healthy food outlets).
- 3.75 In respect of any compulsory purchases that may be required.
- 3.76 Consider the health of workers throughout the lifespan of the scheme, noting workers can be victim of abuse from people that do not support the scheme.
- 3.77 Consideration of suicide prevention for both nearby communities and project workers, recognising that working age males in routine and manual roles are at higher risk, this risk may be further increased when workers are located away from their home support networks.
- 3.78 Consider community concerns e.g. some residents may feel unsettled by an influx of non local workers, potentially affecting their sense of security.
- 3.79 Consider whether the scheme could impact on access to local Green Spaces including temporary closures or restrictions during construction/decommissioning that could limit community use of these spaces. Green spaces are essential for residents' physical and mental wellbeing, and limited access, especially in rural areas, could reduce opportunities for recreation, relaxation, and social interaction.
- 3.80 **Wider Determinants of Health:**
- 3.81 Including employment opportunities and available, housing affordability and availability, transportation access, community cohesion and changes to local property values (with according impacts to mental health/emotional wellbeing).
- 3.82 **Health Inequalities:**
- 3.83 Examine potential disparities in health impacts among different population groups, particularly vulnerable or marginalised communities. E.g. does the project disproportionately affects lower-income residents or those in poorer health.
- 3.84 **Long Term Health Outcomes:**
- 3.85 While some project impacts may be temporary (e.g. construction noise), others might have longer-term health consequences, e.g.

sustained changes to local air quality or reduced access to greenspaces.

3.86 **Community Perceptions and Psychological Impacts:**

3.87 Community concerns about health risks, even if perceived rather than scientifically quantified, can lead to anxiety and stress. Methodology to address these concerns openly, with information on mitigations to manage potential health risks and communication efforts to reassure the community.

3.88 Engaging with the community to understand and document their perceptions to provide insights into the broader social impact of the project and suggest ways to improve public acceptance.

3.89 This section should pay regard to Suffolk County Council's Community Engagement and Wellbeing Supplementary Guidance Document.

3.90 **Adaptation and Resilience:**

3.91 Consider community's capacity to adapt to any health impacts from the project, as well as the resilience of local services (including healthcare) to absorb additional demand from project workers.

3.92 If the project places additional strain on local health resources or creates vulnerabilities (e.g. increased pollution impacting those with respiratory conditions, adaptation measures could include strengthening local healthcare services, improving air quality monitoring, or creating buffer zones to reduce exposure).

3.93 Consider the implications of transport access in this rural project area, particularly regarding potential isolation during colder, wetter months. Transport challenges are common in rural settings, and temporary road closures could disrupt essential bus routes, impacting residents who rely on public transportation.

3.94 **Guidance** – the Health Chapter/assessment should pay regard to:

3.95 BRE (2015) Community Engagement Good Practice Guidance for Solar Farms

3.96 IEMA guide to Determining Significance For Human Health In Environmental Impact Assessment

3.97 Suffolk County Councils Community Engagement and Wellbeing Supplementary Guidance Document

3.98 **Noise**

3.99 Noting Paragraph 12.4 - 'In view of its remote location, a formal construction noise assessment is not included here. However, a Construction Environmental Management Plan will be prepared if permission is granted for agreement with the local authority. This will detail how construction noise can be controlled using best practicable

means. Best practicable means involves using all measures to reduce noise subject to practicality and cost.'

- 3.100 Although the location is described as remote, conducting a formal construction noise assessment would provide an additional safeguard to ensure public health is protected. This “belt and braces” approach would allow for a thorough understanding of any potential noise impacts on surrounding areas and reinforce confidence that best practicable means for noise control are being applied effectively.
- 3.101 **Access**
- 3.102 It is recommended that Paragraphs 10.11 and 10.13 are expanded to include implications of increased demand on healthcare services as a result incoming construction workers who reside from outside the local area.
- 3.103 **Housing**
- 3.104 We note Paragraph 10.15 - 'The Applicant is intending to accommodate any construction or decommissioning workers who reside from outside of the local area in Serviced and/or Non-Services Accommodation as opposed to residential dwellings (rental or otherwise). As such, consideration of potential effects on housing supply, be it affordable or otherwise, is scoped out of the assessment.'
- 3.105 Although the Applicant intends to house construction workers in serviced and non-serviced accommodations rather than residential dwellings, it is possible that this could displace vulnerable local residents who rely on these accommodations. We recommend liaising with BMSDC housing officers to fully assess potential implications and determine if impacts on housing supply should be scoped into the assessment.
- 3.106 **Employment**
- 3.107 Whilst we recognise this may not necessarily be a ‘scoping’ consideration, we suggest there is an opportunity for the scheme to prioritise sourcing and recruiting labour locally to bring economic benefits to the area.
- 3.108 **Methodology**
- 3.109 Paragraph 1.22 details the Specialist Consultants drawn in to consider planning and environmental matters relating to the Project. We note that a Health Specialist has not been included and recommend addressing this to ensure a comprehensive and holistic review.
- 3.110 Paragraph 5.4 sets out a series of environmental factors. Health is not currently included, we recommend addressing this.
- 3.111 **Elmya Grange Substation**
- 3.112 Paragraph 2.44 describes the substation location as “*within the Order Limits or adjacent to them.*” We recommend that the siting of the

substation includes proactive engagement with the local community to address any concerns about EMF exposure. Early consultation can help mitigate worries and improve community trust by incorporating local input into siting decisions.

### **SCC Highways**

- 3.113 SCC preference is for HDD under highways (2.15) to reduce disruption to road users and disruption to the highway fabric associated with open cut crossings.
- 3.114 An independent connection to the grid (2.18) will add another substation to the network located in a rural area with poor highway infrastructure for long term resilient access for HGVs and AILs during construction and operation. The limited highway network and distance from urban areas will also hinder emergency access.
- 3.115 Clarity will be required from the Applicant in terms of which documents control transport matters ie via the CEMP (2.29) or CTMP (11.10). Whilst recognising the limitations of a site in a rural location with limited non-motorised or public transport options a Travel Plan should be provided to promote and maximise sustainable travel options for workers. The site selection does not appear to have considered suitable transport links, particularly to any substation location (4.35).
- 3.116 Applicants should consider the guidance in EN-1 5.14.16 to comply with the DfT policy guidance “Water Preferred Policy Guidelines for the movement of abnormal indivisible loads” when preparing their application (5.16).
- 3.117 Recent experience of delivery of AIL loads within Suffolk has indicated problems with routes to sub stations and other sites. Special Order movements and some STGO3 loads require temporary bridging of structures such as the A137 Ostrich Creek in Ipswich and Brockford Bridge on the A140. Alternative routes such as the A143 from Bury St Edmunds to Scole and thence Beccles, recently reviewed for another project outside Suffolk (East Pye, Norfolk), also have holding restrictions for some AILs.
- 3.118 SCC would recommend long term resilient access is provided to substations to resolve the authorities concerns about access. For example, Yaxley Substation was accessed via a temporary haul road which will be removed after completion leaving a narrow single lane rural road, Leys Lane, Yaxley as the sole route in or out.
- 3.119 When collecting traffic data (11.6) the applicant should be mindful that DfT counters in Suffolk commonly rely on estimated annual values between periodic surveys and such data should be treated with caution.
- 3.120 The presumption of 2027 as the year of assessment for construction traffic (11.7) implies submission of an application soon. This is a concern as no consultation has been undertaken with the highway

authority (11.4) and would significantly restrict the time available to collect data.

- 3.121 In 11.18 the Applicant scopes out fear and intimidation which may result from the impacts of construction traffic in rural communities where non-motorised users commonly share the carriageway with motorised users and formal pedestrian infrastructure within villages is sparse. The lack of pedestrian amenities does not necessarily reflect the lack of use of the highway by pedestrians. Amenity is also considered by the LHA to be an important factor to be considered for PRow and should not be scoped out. SCC is disappointed that the Applicant has not engaged with it as the Local Highway Authority to discuss scoping for the project.
- 3.122 The LHA would concur that the IMEA Environmental Assessment of Traffic and Movement is an appropriate methodology for assessing the transport impacts in the Environmental Statement.
- 3.123 An initial high-level review by the LHA would propose the following:
- 3.124 Severance: Scoped in. Impacts of construction traffic on local communities where bisected by access routes
- 3.125 Driver Delay: Scoped in: Junction and route capacity, AIL movements
- 3.126 Passenger Delay: Potential to be scoped out following consideration of public transport routes
- 3.127 Non-motorised user delay: Scoped in: Includes delays to PRow users.
- 3.128 Non-motorised amenity: Scoped in: PRow and highway users, particularly minor roads used for health and recreation.
- 3.129 Fear and Intimidation for highway users: Scoped in: Concerns about use of local roads without facilities for non-motorised users
- 3.130 Road safety: Scoped in: To include MRN and local roads used to access the site.
- 3.131 Hazardous / large loads. Scoped in: Concerns about resilience of routes to access the site.
- 3.132 Noise: Insufficient data to comment
- 3.133 Vibration: Insufficient data to comment although note proximity of listed buildings to the highway network
- 3.134 Air Quality: Insufficient data to comment

### **SCC Landscape**

- 3.135 LVIA Methodology  
SCC is not currently satisfied that the outline LVIA Methodology provided will be adequate or acceptable because (as explained below) SCC has several queries and reservations about the proposed approach such that further detail will need to be provided by the



Promoter, and the following points should be considered, when providing the full methodology:

- Data sources should be included and clearly referenced.
- SCC considers that the Applicant will need to demonstrate how the project meets the requirements of the landscape policies it references in the Scoping Report.
- All elements of the scheme will need to be assessed, including the cable corridor to, and any proposals for a new substation site (point of connection). The absence of further details regarding the required substation (point of connection) and the corridor required to reach this substation, is of concern. In the following comments SCC will assume that a cable corridor of approx. 5km length and a new substation site would need to form part of this scheme and expects that they would be fully and comprehensively assessed, including with regards to landscape character, landscape features and visual amenity and that appropriate mitigation, and where necessary, compensation, would be provided.
- The Council considers that a clear definition of short, medium, and long term is essential for the assessment of effects and proposed mitigation and should be provided for the purposes of LVIA. The relationship of these definitions to the terms temporary and permanent should also be defined. For example, the Applicant may wish to refer to construction phase effects, where applicable, as 'short-term (temporary) effects', rather than just 'temporary effects' (see paragraph 6.32).
- Subject to more detailed information with regards to the categorisation of effects, the Council considers that moderate adverse effects (or above) should be considered to be significant by default and that it should be clearly demonstrated, on a viewpoint-by-viewpoint basis, if/why they are not considered to be significant.
- SCC considers that minor effects should also be considered within the overall assessment (see paragraph 6.39).

3.136 Visual representations - methodology

3.137 A combination of both wireline and photomontage visualisation may be appropriate. It is unclear which type of visualisation is referred to in paragraphs 6.43 and 6.44.

3.138 The Council would expect that the applicant would provide, as soon as is reasonably practicable, a detailed methodology and rationale for the preparation and presentation of visualisations, be that photomontages, wire frame, or annotated viewpoint photography. The latter may be helpful and important in promoting wider public understanding of the project, and of its anticipated effects. Agreement on methodology, with

the relevant local authorities, supported with sample pages for each visualisation type, would be welcomed prior to the preparation of the visualisations.

- 3.139 A further important aspect of the visualisations would be the realistic representation of any proposed mitigation planting, and its effectiveness. Therefore, both the representation of future mitigation planting, and the anticipated growth rates of that planting, should be agreed with the relevant local authorities and other relevant consultees, prior to preparation of any visualisations.
- 3.140 Data sources and baseline
- 3.141 SCC (Landscape) would welcome a comprehensive list of the relevant data sources proposed to be used for the LVIA.
- 3.142 This should include (in addition to Natural England's National Character Area Profiles):
- Suffolk Landscape Character Assessment, 2008/2011 [www.suffolklandscape.org.uk](http://www.suffolklandscape.org.uk)
  - Joint Babergh and Mid Suffolk District Council Landscape Guidance, 2015
  - Local Landscape Character and Key View Assessments
  - Historic Landscape Characterisation, available from the Archaeological Service, SCC
  - Cultural Heritage designations
  - Survey data available from the Suffolk Biodiversity Information Service (SBIS)
  - Historic maps; First Edition Ordnance Mapping, available from the National Library of Scotland website
  - SCC Solar Guidance <https://www.suffolk.gov.uk/asset-library/scc-policy-large-scale-solar-booklet.pdf>
  - Project Level Design Principles Guidance from the National Infrastructure Commission Design Group, May 2024, attached as Appendix D.
  - Guidance: Nationally Significant Infrastructure Projects: Advice on Good Design <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-good-design>
- 3.143 The Council considers that data sourced from third parties will need to be verified by the Applicant and updated as necessary (referring to paragraph 5.12).
- 3.144 Scoping

- 3.145 Referring to paragraph 6.40 and Table 6.2, Landscape and Visual Aspects to be Scoped In / Out, SCC considers that effects on landscape receptors should not be scoped out solely on the basis of the SZTV, as there are other, perceptual qualities in landscape terms, which do not rely on the SZTV, such as tranquillity. It would be useful, if the findings of the Noise chapter of the ES would be discussed in the Landscape and Visual chapter, in so far as they are relevant.
- 3.146 SCC considers that cumulative effects of Landscape character and visual amenity beyond 3km from the site should be assessed in the ES, if this is warranted by the effect, for example, sequential effects when travelling through the landscape.
- 3.147 SCC considers that decommissioning effects as well as impacts and effects of intermittent re-powering (such as the replacement of solar panels) should be scoped into the assessment, as these may result in significant adverse effects on habitats and vegetation, both retained and created as part of mitigation, which need to be documented.
- 3.148 SCC considers that the cumulative threshold criteria should be arrived at through consultation with the relevant local authorities.
- 3.149 The Council considers that any lighting and other night-time effects should be scoped in for landscape and visual amenity, as well as ecological, assessment.
- 3.150 *Relationship of Landscape and Visual Matters with other parts of the EIA*
- 3.151 The Scoping Report does not explicitly recognise the relationships between landscape and visual matters and other parts of the EIA, specifically, ecology; historic environment (in particular, archaeology); flood and water management; socio-economics and tourism; and traffic, transport and rights of way. The Council considers that to ensure a comprehensive assessment of landscape and visual effects the relationships between this chapter and other matters in the EIA needs to be clearly recognised and addressed.
- 3.152 *Intra-project effects of multiple aspects on receptors*
- 3.153 The Scoping Report does not appear to propose the assessment of the cumulative effects that various elements or sections of the scheme could have on certain receptors. To give an example, users of Public Rights of Way may be affected by footpath closures and diversions, by construction noise, vibration and dust as well as by loss of shelter and visual amenity, because of the loss of vegetation; furthermore, all these adverse effects on footpath users could be compounded by the sequential nature of the effects because of the size of the scheme.
- 3.154 Given that users of PRow are pivotal receptors, especially when it comes to intra-cumulative and sequential effects, SCC considers that

considerations for Public Rights of Way should be presented as stand-alone chapter in the PEIR and the ES.

3.155 *Cumulative effects*

3.156 Cumulative effects with other projects (see paragraph 4.26), will need to be fully considered. In particular, the cumulative and combined effects by other projects on landscape character and visual amenity, ecology, water management, cultural heritage (including archaeology) and public rights of ways will need to be assessed, so that a strategy can be developed to reduce and mitigate these effects through engagement and co-ordination with the identified other projects.

3.157 *SZTV, Study Area, and Viewpoint Locations*

3.158 Initial proposals for viewpoints are set out in Table 6.1. Figure 6.5 provides a Viewpoint Location Plan, which also shows the SZTV and the proposed study area of 3km.

3.159 SCC queries why the SZTV was run at an average height of 3m across the site, when there will be taller structures and when even the solar panel arrays could be 3.5 m high (see paragraph 2.13) or even 3.6 m high (see paragraph 8.5), and how this accords with the application of the Rochdale envelope presenting the worst-case scenario.

3.160 The question regarding the SZTV also has implications with regards to the Study Area. SCC is content that, in principle, a 3km study area could capture most of the significant adverse effects on landscape and visual amenity of the proposed scheme but the Applicant needs to justify the extent of the SZTV that was used to inform this threshold distance limit, having regard to the use of an average height below that of most if not all of the proposed development.

3.161 However, it is noted that in any event, because of the topography, there is potential visibility, and therefore the potential for glint and glare, beyond the proposed 3km study area.

3.162 The Council considers that these areas should not be scoped out of the assessment and that there should remain some flexibility to provide assessment of these locations, should this be warranted, when further information about the project becomes available.

3.163 The Council would welcome a meeting with the Applicant to determine, where additional viewpoints may be required, prior to submission of the Preliminary Environmental Information Report, and reserves the right to request additional viewpoints, or revised viewpoints, to support the final EIA that will be submitted with the DCO application, should this be warranted at a later stage.

3.164 The scoping document does not differentiate between representative, illustrative and specific viewpoints. Given the scale of the project, the Council considers it may be necessary to include both specific viewpoints *and* illustrative viewpoints, as discussed in paragraph 6.19

of GLIVIA 3. (Specific viewpoints may be required to understand impacts on specific heritage assets, which is a matter outside and in addition to the scope of LVIA.)

- 3.165 Impacts on the fabric of the landscape
- 3.166 An Arboricultural Impact Assessment (including a comprehensive Tree Survey, Tree Constraints Plan, Tree Protection Plan and Arboricultural Method Statement) in accordance with the up-to date BS 5837 Trees in relation to design, demolition and construction, and an Arboricultural Strategy for the solar site, cable corridor and substation (connection point) site will be required for review by the relevant local authority.
- 3.167 The loss or reduction of trees will need to be accurately documented.
- 3.168 SCC expects that **all** trees – not just ancient, veteran and notable trees – within and adjacent to the scheme boundary will be appropriately identified and mapped, and that impacts on **all** trees, but particularly impacts on ancient, veteran and notable trees are avoided, as far as possible, and compensated where this is not possible.
- 3.169 It will not be sufficient for landscape purposes to account for tree and hedge loss within the biodiversity metric.
- 3.170 To inform landscape mitigation proposals it will be necessary for the Applicant to provide accurate information on how many trees and how many square metres / hectares of woodland would be lost to enable the project and where they would be lost. Information of the type of trees and their condition will also need to be provided.
- 3.171 Further, based on the experience of similar projects elsewhere in Suffolk, a comprehensive approach to important hedgerows under the Hedgerow Regulations 1997 will also be required. This should identify all hedgerows within and along the boundaries, of the project area (including substation site and cable corridor) that are important under the various historic criteria, in addition to the ecological matters under the regulations as set out in Section 3 and Schedule 1 of the Regulations.
- 3.172 Additional impacts both on trees and hedgerows are anticipated due to the creation of construction access and laydown areas, and the Council expects that these areas will also be fully considered.
- 3.173 Habitat Creation and Landscape and Visual Mitigation
- 3.174 SCC expects that the Mitigation Hierarchy is applied in full (avoid – reduce - mitigate – compensate), to any adverse impacts (in accordance with NPS EN1, para. 4.1.5.)
- 3.175 SCC expects that tree and hedgerow planting (mentioned in paragraph 2.33) will be commensurate with the requirements for effective mitigation of adverse landscape and visual effects resulting from the scheme (this is likely to require planting beyond that required to achieve BNG).

- 3.176 SCC would welcome permissive public access would be in addition to the existing rights of way.
- 3.177 Design measures
- 3.178 As mentioned above, SCC considers that the Mitigation Hierarchy must be applied to its full extent and that this needs to be anchored into the design principles. Embedded design measures should include avoidance and minimisation of vegetation losses (for the purposes of landscape, this means, in particular, losses of trees and hedgerows), before considering mitigation and compensation measures.
- 3.179 Biodiversity Net Gain (BNG)
- 3.180 Although not yet required by law, SCC considers that it would be best practice to aim for a biodiversity net gain of no less than 10%.
- 3.181 The importance of Good Design
- 3.182 SCC notes that section 4.7 of Overarching National Policy Statement for Energy, EN-1, (November 2023, in force since 17 January 2024) suggests in 4.7.8 that the Applicant should consider taking independent professional advice on the design aspects of schemes. It further states that:
- 3.183 ‘In particular, the Design Council can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service. Applicants should also consider any design guidance developed by the local planning authority.’
- 3.184 Furthermore, the SCC notes that the National Infrastructure Commission, Design Group, states in their Project Level Design Principles Guidance Document (May 2024) that: *“Project directors should be supported by a board level design champion. Design champions will be accountable for the implementation of a sound design process, delivery of quality design outcomes and for the project maximising wider benefits.”* (p.34, paragraph 12).
- 3.185 There is also advice on Good Design for Nationally Significant Infrastructure Projects on the governments’ website:  
<https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-good-design>
- 3.186 SCC expects that these recommendations would be included in the overarching design principles.
- 3.187 SCC would support the principle of a Design Champion being engaged sufficiently early in the development of the project to oversee the design process.
- 3.188 A Design Champion would have the potential to contribute to the consideration of sustainable design issues and to the integration of the proposals into the landscape at the detailed design, construction, and operational stages of the project.

- 3.189 SCC would also support the use of a design review panel, design code/design approach document, and an outline of the design process, setting out key stakeholders, consultees, and the community engagement processes.
- 3.190 The skillset required of a Design Champion has not been clearly defined within the National Infrastructure Strategy. The Institution of Civil Engineers (ICE) and the National Infrastructure Commission Design Group (NICDG) have produced a useful working paper 'Defining and developing the design champion role' (August 2022), in this respect, which can be found in Appendix E.
- 3.191 Control measures
- 3.192 SCC considers that soft landscape works for landscape and visual mitigation should be included in the proposed works (paragraph 2.7).
- 3.193 SCC expects that adverse effects on landscape and visual amenity resulting from preliminary and temporary works enabling construction will be fully assessed in landscape and visual amenity terms. (paragraphs 2.8-2.10)
- 3.194 SCC considers that the measures to protect sensitive landscape features should also include HDD, micro-siting and reduced working widths (including in cable corridors leading to, and at the grid connection).
- 3.195 SCC considers that it will be necessary for the Applicant to provide an Arboricultural Impact Assessment including a Tree Constraints Plan and a Tree Protection Plan, produced in accordance with the British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction', which would set out protective measures such as fencing and construction exclusion zones within tree root protection areas. SCC considers that heras- type fencing will be required as a standard, unless otherwise agreed with the relevant local authority in exceptional locations.
- 3.196 SCC welcomes the Applicant's commitment to the two-stage approach of providing an Outline Landscape and Ecology Management Plan (OLEMP) for the DCO submission, followed by a post-consent detailed LEMP (paragraph 2.32).
- 3.197 SCC would welcome if the OLEMP was rooted in the principles and proposals for the Suffolk Local Nature Recovery Strategy (LNRS) and if it would be agreed with the relevant planning authorities prior to the DCO submission.
- 3.198 SCC would welcome the provision of an Environmental Masterplan, on the assumption that the contents would be agreed with the relevant planning authority.

### **SCC Planning Authority**

- 3.199 The County Council as minerals and waste planning authority has responsibility for the safeguarding of planned and operational minerals and waste facilities as well as underlying minerals resources.

#### **Suffolk Minerals & Waste Local Plan**

- 3.200 Policy MP10 titled “Minerals consultation and safeguarding areas” seeks to safeguard:
- a) those Minerals Safeguarding Areas located within the Minerals Consultation Areas identified on the Proposals Map from proposed development in excess of five Ha, and;
  - b) areas falling within 250m of an existing, planned or potential site allocated in the Plan for sand and gravel extraction.
- 3.201 Policy WP18 titled “Safeguarding of waste management sites” seeks to safeguard:
- a) existing sites and sites proposed for waste management use as shown on the Proposals & Safeguarding Maps.
- 3.202 The full text of these policies, along with the corresponding supporting text for each can be found in Appendix F.
- 3.203 Reference to the Safeguarding and Proposals Map indicates no exposed sand and gravel rendering a minerals resource assessment unnecessary. There are also no existing or proposed minerals or waste development in the immediate vicinity of the proposed development site except for Waste Water Treatment plants.

#### **Babergh and Mid Suffolk Joint Local Plan**

- 3.204 There are also several policies from the Babergh and Mid Suffolk Joint Local Plan which the Applicant must demonstrate that it complies with. Relevant policies omitted from the Applicant’s report include Policy LP16 - Biodiversity & Geodiversity, Policy LP19 - The Historic Environment, Policy LP27 – Flood risk and vulnerability, Policy LP29 - Safe, Sustainable and Active Transport, SP09 – Enhancement and Management of the Environment and Policy LP 30 – Managing Infrastructure Provision.
- 3.205 SP08 – Strategic Infrastructure Provision includes the following requirement which SCC expects the Applicant to meet:
- 3.206 ‘2) All development will also need to make provision for appropriate contributions towards community infrastructure.’
- 3.207 In addition, SCC notes that the Scoping Request only refers to Policy LP25 – Energy Sources, Storage and Distribution in the context of air quality (para 13.48), but the ambit of that policy is considerably broader and it needs to be fully addressed.



- 3.208 These policies, along with the corresponding supporting text for each, can be found in Appendix F.

**SCC Property**

- 3.209 No comments

**SCC Public Rights of Way**

- 3.210 Response from SCC as Highway Authority for Public Rights of Way, Access and Amenity:

3.211 **Summary**

3.212 **Planning Policy**

- 3.213 The NPPF refers to the Public Rights of Way network specifically:

- 3.214 104. Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.

3.215 **Local Planning Policy**

- 3.216 Suffolk County Council Green Access Strategy 2020-2030 (Rights of Way Improvement Plan) should be included as relevant local planning guidance. The plan sets out the council's commitment to ensuring and promoting sustainable travel options for all. The strategy focuses on walking and cycling for commuting, accessing services and facilities, and for leisure reasons. Specifically, 2.1 "Seeks opportunities to enhance public rights of way, including new linkages and upgrading routes where there is a need, to improve access for all and support healthy and sustainable access between communities and services. Funding to be sought through development and transport funding, external grants, other councils and partnership working."

- 3.217 The Council will expect enhancements to the network in addition to mitigation, compensation, and management strategies that will ensure that the public; residents and tourists alike, retain the quantity and quality of access provision.

3.218 **Methodology**

- 3.219 The EIA does not holistically consider how the potentially significant effects that may arise from construction, operation and decommissioning on the public rights of way & access network and its amenity value, will be assessed. The access network includes public rights of way, permissive access, open access land and promoted routes.

- 3.220 The assessment considers aspects of this access network within the basic project section, site description and landscape & visual.

- 3.221 This potentially gives rise to a weakness in the EIA process, as recognised in PINS advice note 9, that when considered individually, an

impact might be assessed as not significant, but if the impacts had been considered collectively for that receptor, they could be significant. A walker, cyclist or horse rider using a public right of way or on open access land experiences the countryside, and hence any impacts, holistically; namely the quality and diversity of the views, wildlife and natural features, the sense of wildness, peace and quiet, the presence (and absence) of traffic, noise, lighting and air quality, and the connectivity of the network.

- 3.222 Therefore, the County Council's position is that the impact on both the physical resource and the amenity value of the public rights of way and access network should be addressed as a separate theme within an Environmental Assessment. This should include the effect on the physical resource from temporary or permanent closures and diversions, and on the quality of user experience. The applicant must refer to the County Council's Public Rights of Way & Green Access Supplementary Guidance Document <https://www.suffolk.gov.uk/asset-library/green-access-prow-guidance.pdf> and the County Council's Large Scale Solare Schemes Supplementary Guidance Document: <https://www.suffolk.gov.uk/asset-library/scc-policy-large-scale-solar-booklet.pdf>.
- 3.223 Consideration should be given to the assessment methodology and cover:
- physical changes to resources (for example, changes to PRow through diversions or creation of new road crossings)
  - changes to the experience people have when using recreational resources due to perceptual or actual changes to views, noise, air quality or traffic movements
  - changes to the experience people have when using recreational resources due to increases in the numbers of people using them
- 3.224 Little weight should be given to permissive footways (2.34) as a positive impact or as mitigation of adverse impacts unless the long-term provision is secured through the planning process. PRow's are managed by SCC as the highway authority rather than MSDC as the planning authority.
- 3.225 It is unclear if PRow will be considered in transport section or split over a number of other topics (5.4). SCC consider PRow form their own topic. It is implied in 6.6 that PRow included in landscape and visual.
- 3.226 **Cumulative Impact**
- 3.227 The impact of temporary closures of PRow should not be underestimated, as their value for local amenity could be severely reduced or removed during works. It will be unacceptable for the public to lose their amenity by the effective sterilisation of an area due to closures and disruptions from parallel or concurrent projects.

3.228 There will need to be mitigation, compensation, and management strategies to ensure that the public; residents and tourists alike, retain the quantity and quality of access provision

3.229 **Pre-commencement works**

3.230 These can typically include archaeological, ecological, site investigations and site clearance and in other NSIPs have not been included in the post commencement plans or within the DCO controls for temporary closures of PRoW. This raises concerns as to the potential impact of these works on the access network specifically the level and control of traffic using PRoW for site access, and how PRoW will be managed during survey and site clearance works. It is suggested that the applicant consider a pre-construction management plan as was provided for the East Anglia One (North) and East Anglia Two Offshore Windfarms, EA1N and EA2.

3.231 **PRoW Agreements & Decision Making**

3.232 Discussions/decisions and agreements relating to public rights of way and open access land should be with the Highway Authority and Access Authority respectively, namely, Suffolk County Council.

3.233 SCC as Highway Authority should be the discharging authority for any highway works.

3.234 **2 The project:**

3.235 *Public Rights of Way*

3.236 2.41. States that ‘Temporary diversions of Public Rights of Way that traverse the project site may be required during the construction and decommissioning periods’.

3.237 Suitable diversions where there could be temporary or permanent disruption to PRoW & recreational routes should be agreed with the Highway Authority. This should include the management of these routes covering alternative routes and communication to third parties.

3.238 Please refer to Appendix G.

3.239 **3 Site description:**

3.240 *Public Rights of Way*

3.241 3.3. The Mid Suffolk Footpath, a 27 km linear route, crosses the north eastern field within the site and also, for a distance of approximately 350 m, lies adjacent to the south-eastern boundary close to the settlement of Mendlesham. Several other public rights of way provide walking connections between the surrounding settlements and scattered farmsteads. Those which extend within the site are as follows:

- *Connected footpaths 5 (Mendlesham) and 16 (Wickham-Skeith);*
- *Footpath 45 (Wickham Skeith); and*

- *Footpath 3 (Thwaite) along which the Mid Suffolk Footpath follows a route.*
- 3.242 It has not been set out as to how these or the connecting public rights of way will be affected and for how long. SCC are prepared to agree and identify the affected routes. Please ensure all Rights of Way spatial data is shown on future plans. The legal record for PRow, the Definitive Map & Statement is held by Suffolk County Council and so the applicant must request the digital data directly from the County Council ([definitivemap.enquiries@suffolk.gov.uk](mailto:definitivemap.enquiries@suffolk.gov.uk)).
- 3.243 **4. EIA Methodology**
- 3.244 *4.3. The content of the Environmental Statement will be based on the following:*
- Review of the baseline situation through existing information, including data, reports, site surveys and desktop studies.
- 3.245 SCC expects to be provided with accurate and robust evidence of the nature and usages of the access network, and not relying on a desk-based approach and assumptions. Visitor surveys, site surveys, consultation with user groups and local communities are examples of the research applicants should expect to undertake. Surveys should cover the full use of the network and at peak times, preferably a weekday and weekend day. Routes are often used earlier and later in the summer months to cover daylight hours.
- 3.246 **6 Landscape and visual:**
- 3.247 *6.30. The southern part of the site falls in the Parish of Mendlesham Neighbourhood Development Plan, which was adopted 2018-2037, version 4.8.2 (Referendum Version), Revised Autumn 2022.*
- *Policy MP10: Open Spaces*
  - *Policy MP11: Public Rights of Way and Countryside Access*
- 3.248 ***Likely Significant Effects (construction, operation and decommissioning)***
- 3.249 SCC welcomes the PRow and Countryside Access is being scoped as per the neighbourhood plan.
- 3.250 6.42. Table 6.1 sets out viewpoint descriptions, this does not, however, cover all of the rights of way affected by this application. Consideration needs to be given for the perspective of viewpoints for all users. Covering not only pedestrian access but also increased height for cyclists and equestrian use where applicable.
- 3.251 The impact of light, glint and glare must be considered with regards to the impacts on the Public Rights of Way.
- 3.252 **11 Traffic and Transport**

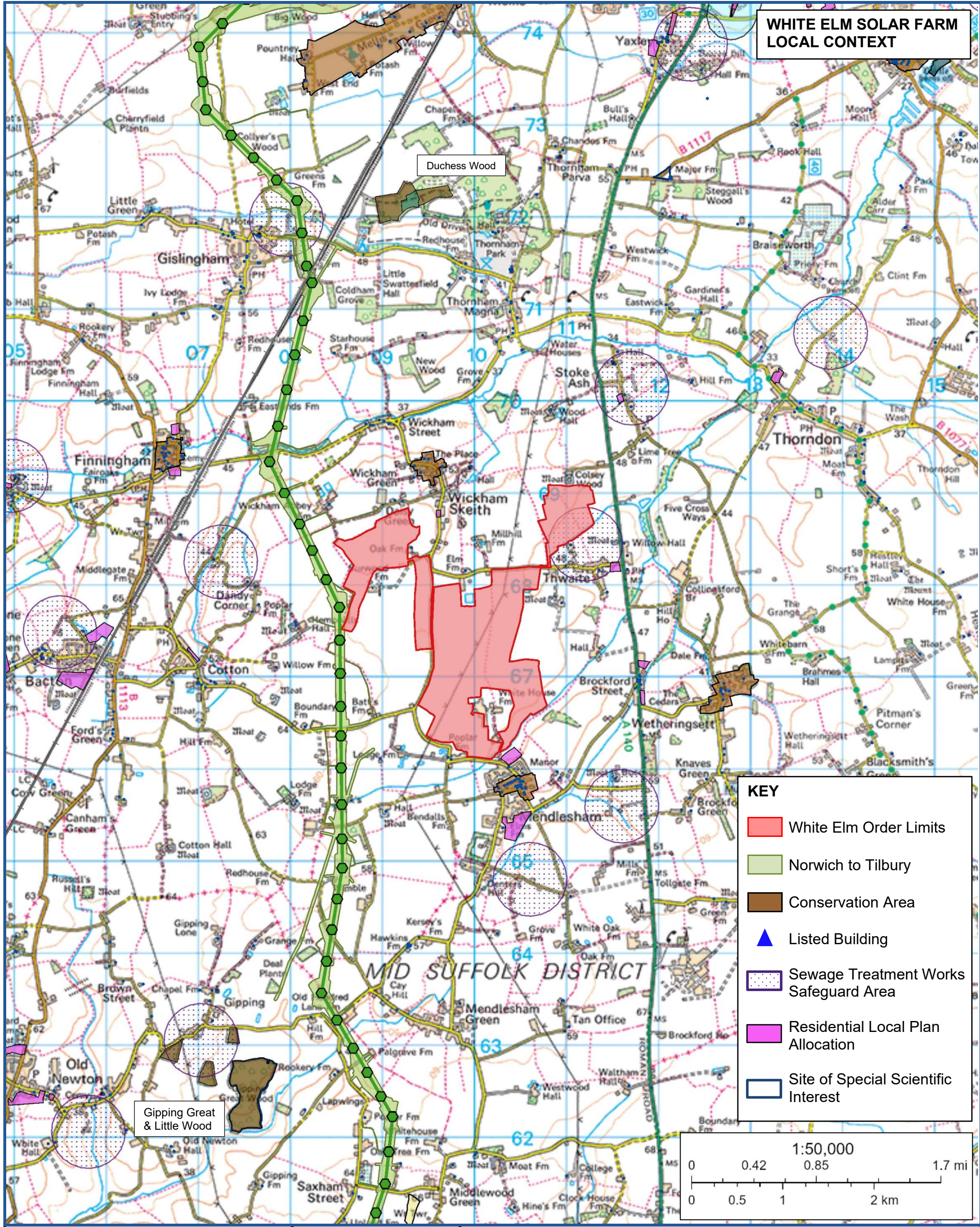
- 3.253 Suffolk County Council Green Access Strategy (Rights of Way Improvement Plan) should be included as relevant local planning guidance.
- 3.254 *11.16. It is noted that there are six Public Right of Way (PRoW) routes which cross or abut the Site. The temporary diversion or stopping up of the PRoW will be considered in consultation with PRoW officers in due course.*
- 3.255 It has not been set out as to how these or the connecting public rights of way will be affected and for how long. SCC are happy to agree and identify the affected routes. Please ensure all Rights of Way spatial data is shown on future plans. The legal record for PRoW, the Definitive Map & Statement is held by Suffolk County Council and so the applicant must request the digital data directly from the county council.
- 3.256 **12 Noise and Vibration**
- 3.257 *11.17. The residual impacts of the scheme, taking into account any proposed mitigation would then be assessed and confirmed. It is anticipated that other related potential impacts such as noise and vibration and air quality will be considered by other disciplines throughout the EIA process.*
- 3.258 Consideration should be given to how the public rights of way will be impacted by noise and vibration and should be included in the significance and mitigation tables in sections 12 and 11.
- 3.259 It is requested that the Public Rights of Way and Access is assessed in its own section within the EIA to ensure that the effects on the physical resource from temporary or permanent closures and diversions, and on the quality of user experience is accurately assessed and mitigated for.



**White Elm Solar Farm EIA Scoping**  
**Comments of Suffolk County Council**  
Appendix A: A3 Portrait Plan Showing Local  
Context 50.000

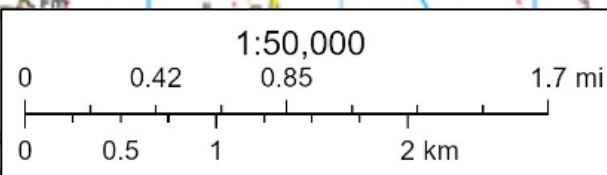


**WHITE ELM SOLAR FARM  
LOCAL CONTEXT**



**KEY**

- White Elm Order Limits
- Norwich to Tilbury
- Conservation Area
- Listed Building
- Sewage Treatment Works Safeguard Area
- Residential Local Plan Allocation
- Site of Special Scientific Interest



Growth, Highways & Infrastructure  
Endeavour House  
8 Russell Road  
Ipswich  
Suffolk  
IP1 2BX

**WHITE ELM SOLAR FARM**  
Scoping in respect of Elmya Energy's proposed  
White Elm Solar Farm Development Consent Order  
(DCO) application

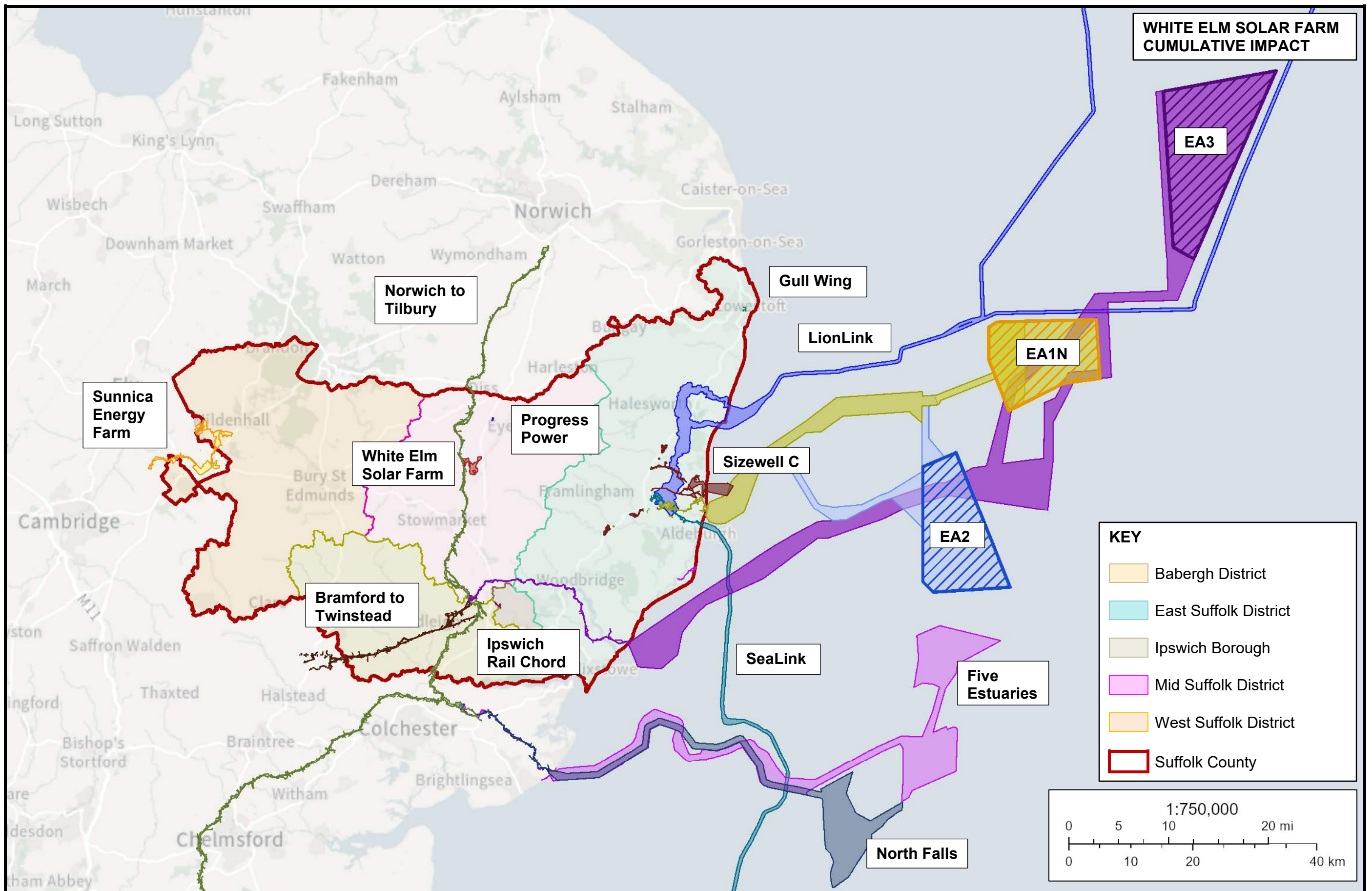






**White Elm Solar Farm EIA Scoping**  
**Comments of Suffolk County Council**  
Appendix B: A3 Landscape Plan Showing  
Cumulative Impact 750.000





Growth, Highways & Infrastructure  
 Endeavour House  
 8 Russell Road  
 Ipswich  
 Suffolk  
 IP1 2BX

**WHITE ELM SOLAR FARM**  
 Scoping in respect of Elmya Energy's proposed White Elm Solar Farm Development Consent Order (DCO) application





**White Elm Solar Farm EIA Scoping  
Comments of Suffolk County Council**  
Appendix C: Energy and Climate Adaptive  
Infrastructure Policy Supplementary  
Guidance - Skills and Workforce



## **Suffolk County Council's Energy and Climate Adaptive Infrastructure Policy Supplementary Guidance Document**

**The assessment of skills, workforce, and supply chain requirements, the mitigation of adverse impacts, and the maximisation of opportunities.**

This is a supplementary guidance document, to support the Energy and Climate Adaptive Infrastructure Policy<sup>1</sup>, which was adopted by Suffolk County Council's Cabinet, on the 16th of May 2023.

### **Scope and purpose of this Supplementary Guidance Document**

Suffolk has natural and geographic advantages that make it attractive to project promoters for locating low-carbon technologies, and the consequent supporting infrastructure. This, therefore, creates significant challenges and opportunities for the economy, environment, and communities of Suffolk.

Major infrastructure projects, both alone and in combination with other projects, require a significant transitory construction workforce to ensure effective delivery. Projects may also require an operational workforce consisting of both permanent staff, and contractors, on a periodic or rolling basis, that engages and involves local and regional supply chains.

Project promoters should be seeking to deliver inclusive growth through working with partners, such as Suffolk County Council<sup>2</sup>, to identify and deliver additional social value. National toolkits, frameworks, and individual case studies, such as those available through the HMG Social Value model<sup>3</sup>, could assist with this process and the measurement of outcomes. A skills programme for example, could be achieving a reduction in long distance commuting, and supporting other local businesses, as well as reducing health inequalities.

The purpose of this document is to set out how the County Council expects project promoters to:

- Identify the anticipated geography from which the workforce will be drawn, and the extent to which any non-home-based workforce is likely to require additional temporary accommodation, particularly during construction.
- Effectively identify skills and labour force needs for the construction, operation and decommissioning of their project, and in doing so, maximise the opportunities for local companies and employment.

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<sup>1</sup> <https://www.suffolk.gov.uk/planning-waste-and-environment/major-infrastructure-projects-including-nsips/energy-infrastructure-policy>

<sup>2</sup> <https://www.suffolk.gov.uk/business/tenders-and-supplying-us/social-value>

<sup>3</sup> <https://www.gov.uk/government/publications/social-value-act-information-and-resources/social-value-act-information-and-resources>

- Identify workforce numbers by skill, and the duration for which each workforce type will be required, throughout the construction of the project.
- Analyse and identify the linkages and dependencies between these workforce requirements and the implications for, transport modelling, accommodation and housing, and provision of local services, including, but not limited to, health and public protection.
- Identify and analyse the extent to which the project's labour and skills demands, both alone and in combination with other projects, may capture staff from the existing workforce, leading to adverse outcomes, for the delivery of services, or for the local economy more widely.
- Recognise that there may be specific local sensitivities, in respect of the natural environment and communities, that may be adversely impacted by the workforce needs of the project, which will also need to be identified and mitigated.
- Identify the spatial and temporal relationships between their project, and other projects, working collaboratively with other project promoters to both minimise and mitigate adverse impacts, and maximise positive impacts.

In addition to identifying and mitigating any potential harms in respect of workforce and skills, the County Council also expects, in accordance with the Energy and Climate Adaptive Infrastructure Policy, that, outside consideration of the planning balance, project promoters will support the delivery and use of local and regional supply chains by:

- Recognising the project's regional role as part of Suffolk's energy cluster, increasing and accelerating inward investment of Tier one and Tier two contractors, who are likely to be working on multiple projects locally.
- Delivering opportunities for the growth of non-engineering or non-construction related businesses associated with supporting the delivery of the project, including, but not limited to, catering, transport, and facilities management.
- Identifying and developing opportunities for research, development, and innovation, across the energy and construction sectors in Suffolk, and the region.
- Supporting the delivery of long term, sustainable opportunities, in the energy sector, and related sectors, across Suffolk and the region.
- Recognising that it is essential to differentiate between the construction and civils opportunities of the project, and the mechanical and electrical engineering opportunities, during the construction cycle.

- Recognising that the mechanical and electrical engineering opportunities of the construction cycle, are likely to support and enhance the long term, permanent staffing and regional legacy benefits of the project.

Project promoters should deliver, and enhance existing and emerging, skills and educational initiatives by:

- Establishing an agreed governance framework for the project's skills and educational enhancement with Suffolk County Council, through Suffolk County Council's Regional Skills Coordination Function.
- Ensuring alignment with skills and educational initiatives in Suffolk, the Suffolk Social Value Skills Ask and, where appropriate, the wider region.
- Coordinating and assisting contractors to develop initiatives to ensure the sufficient supply of skills and capabilities are available, at the right time, to enable both project delivery, and the growth of the energy sector in Suffolk.
- Promoting and securing inclusive growth, by working to ensure provision of opportunities relevant to the regional need.
- Ensuring that skills and educational initiatives are fully inclusive, recognising, and responding to, the diverse needs of Suffolk's communities; taking action to create access and remove barriers to opportunities for those groups that require it.

### **The assessment of socio-economic impacts**

To date the assessment of socio-economic impacts within the EIA are usually dominated by the characterisation of the local baseline conditions, whilst the meaningful assessment of effects has been limited, or entirely absent.

The Council considers that this focus, on reproducing baseline information in the EIA, is not effective, or sufficient, to understand the impacts of, or opportunities arising from, a project. Likewise, it does not allow the effective understanding of cumulative impacts or opportunities.

The outputs of socio-economic modelling are the foundation for the assessment of effects regarding transport, temporary accommodation, housing, and the provision of local public services and public protection.

The principal purpose of this guidance is to ensure that project promoters deliver a robust and effective assessment of effects, both positive and negative, arising from their project. The Council considers that these effects should be agreed, and understood, before project effects and mitigations, on transport, accommodation and housing, and the provision of local services, are modelled.

The proposed approach to the assessment of socio-economic impact, and the labour force and skills needs, for the project alone, and in combination with other projects, is set out in the Appendix.

Final Draft Only

## Appendix

The following elements are to be provided or assessed in detail:

- The existing socio-economic environment and baseline
- The relevant strategy and policy
- A comprehensive supply chain assessment, including the details of what relevant businesses exist locally; and what their capacity to supply, or ability to expand is, to meet the project's requirements
- Education and training infrastructure and their capacity to supply, or ability to expand through investment, to provide learning or training required to support the supply of relevant skills, competencies, and capabilities.

The purpose of assessing these elements is to arrive at agreed and evidenced, percentages of local employment (direct, indirect, and induced) and supply chain effects in low, medium, and high engagement scenarios, allowing the applicant, with confidence, to provide:

- direct employment numbers (and associated GVA)
- indirect employment numbers (local/regional supply chain) (and associated GVA)
- A robust temporal model of the needs of the project in terms of labour force numbers and skills, during its construction, operation and decommissioning.

The applicant will also provide evidence that the methodology used to calculate induced employment, (and associated GVA) correlates with the above.

Regarding data sources, the applicant should work with Suffolk County Council's Regional Skills Coordination Function, and the skills and economic functions of Local Authorities, to support identification of relevant and up to date sources of local and regional data.

**THESE FINDINGS INFORM TRANSPORT MODELLING, ACCOMMODATION AND HOUSING, AND PROVISION OF LOCAL SERVICES, INCLUDING BUT NOT LIMITED TO, HEALTH AND PUBLIC PROTECTION.**

Therefore, the project promoter and the County Council will need to agree the detailed assessment methodology prior to this work being undertaken. Subsequently, the County Council and project promoter will need to agree that the outputs are acceptable and robust, such that they can inform both the socio-economic modelling and the potential impacts, on transport modelling, accommodation, housing and local services.

The most important information for the County Council to understand, from any and all project promoters, is how many people, and what skills, are required for what period of time, for both the workforce and supply chain.

Most consenting applications spend time and effort scoping what the region looks like, the employment level, skills and attainment levels, unemployment etc. The County Council is aware of the existing conditions, and although these do need to be correctly set out in an EIA, the work should concentrate on the correct identification of the following elements to inform the subsequent analysis:

## **1. The workforce**

Identify the anticipated geography from which the workforce will be drawn. Due to the distinct difference between workforce and supply chain, the applicant is expected to define a separate economic study area for these two distinct elements.

Workforce Inputs:

- Define the distinct workforce phases of the project (e.g. Civils, Mechanical & Electrical, Commissioning etc) at the most granular level that data and knowledge support.
- Identify the skills required within these phases and the duration of the phase.

Once these elements are defined, the applicant can begin to define an economic study area for the workforce considering the following:

- The propensity for travel is different for skilled and unskilled workers and will also differ depending upon the duration of role.
- The availability of public transport and the local road network
- Preferred method of travel to work.
- Correlation to Traffic and Transport methodology.

Workforce Outputs:

- A defined geography from which unskilled/semi-skilled labour can be expected to be drawn from for each distinct work phase
- A defined geography from which skilled labour could be expected to be drawn from for each distinct work phase.



## 2. The Supply Chain

### Supply Chain Inputs:

As supply chain can be drawn locally, nationally and internationally, the geography defined here should represent areas that are impactful for the region. Therefore, hyper local should be defined as the Local Authority District hosting the project, local defined as the County hosting the project and then impact also considered at a regional level. For example, a project located in Stowmarket will use and define its Supply Chain geography as:

- Hyper Local – Mid Suffolk (Local Authority District)
- Local – Suffolk (County)
- Regional – East of England (Region)

### Supply Chain Outputs:

A defined geography from which local and regional supply chain companies could be expected to be drawn from for each distinct work phase

## 3. Identify skills and workforce effects during construction, operation and decommissioning

Once defined geographies and work phases have been agreed for workforce and supply chain respectively, these can then be used to identify the size of the home-based employment opportunity. This assessment should be done using a low, medium and high probability scenario for home based employment opportunities. The worst-case scenario should always be the scenario used for identifying impacts and the corresponding effect on transport, accommodation and housing and local services modelling. The probability scenario will also refer to cumulative impact.

### Skills and Workforce Inputs:

The applicant will need to produce an assessment, for each distinct workforce phase of the project as defined above, this should not include the indirect and induced employment opportunities that would occur if a local company were to receive a contract on the project. These will be accounted for separately, to avoid any double counting of benefit or negative impact.

| Probability of home-based employment opportunity | Descriptors  |
|--|--|
| Low  | <ul style="list-style-type: none"> <li>• Little or no established demand skill sets in the workforce</li> <li>• Reliance on market to respond</li> <li>• No intervention from either the applicant or any local/regional stakeholders</li> </ul> |

|        |  |
|--------|--|
|        | <ul style="list-style-type: none"> <li>• High employment levels leaving little to no capacity in the marketplace</li> <li>• Low levels of applicable skills</li> <li>• Low population level</li> <li>• Short duration of employment opportunity</li> <li>• Significant proportion of population in identified geography are not of working age or economically inactive</li> <li>• Constraints on local capacity:             <ul style="list-style-type: none"> <li>○ The project is unique to the area, and therefore limited opportunity to create an employment pipeline</li> <li>○ Comparative projects being developed in the area leading to employment saturation</li> </ul> </li> <li>• Limited public transport</li> </ul> |
| Medium | <ul style="list-style-type: none"> <li>• Labour force with some appropriate skills</li> <li>• The usual levels of unemployment in relation to the wider economic geography</li> </ul>  |
| High   | <ul style="list-style-type: none"> <li>• High levels of unemployment</li> <li>• Significant labour force with appropriate skills</li> <li>• High proportion of people of working age</li> <li>• Long duration of employment opportunity</li> <li>• Plausible transport links including public transport</li> <li>• Comparative projects being developed in the area, with an opportunity for an employment pipeline to be created</li> <li>• Planned interventions from the applicant and local and regional stakeholders</li> <li>• Local training and education offer that can provide relevant skills</li> </ul>  |

## Skills and Labour Force Output

This will need to define and quantify the following:

- The definition of a worker
- The size of home-based employment opportunity
  - Low scenario will represent worst case scenario to be used in all assessment work on impact
- The size of non-home-based worker population
  - Low scenario of home-based employment opportunity is to be used, as this will represent the worst-case scenario for modelling impacts on transport, accommodation, housing, and local services

Employment should always be referred to as an *opportunity*. It cannot be assumed that just because there is an opportunity that this will result in employment happening. The job of the Councils, collaboratively with the applicant, is to fully understand the size and nature of the opportunity. If it is agreed that there is an opportunity, the Councils and applicant will then work to build a skills pipeline to help meet both current and any likely future demand, by working collaboratively with other key stakeholders to develop programmes and processes that will ensure people have the right skill at the right time, and so have an opportunity to gain employment with the project.

#### **4. Identify Supply Chain effects during construction, operation and decommissioning**

The effect on Supply Chain is quantified to allow evidenced judgements to be made in the following areas:

- contribution to the development of, and support of, local and regional businesses
- any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains
- any negative impacts, direct and indirect, for example potential wage inflation that would stifle growth

At this early stage of the project lifecycle there will be no supply contracts in place therefore a scenario-based approach using probability of supply should be used. The project promoter will need to evidence the supply chain opportunity across all elements of the project, considering cumulative impacts with other projects.

Supply Chain Input:

The applicant to produce an assessment that identifies the distinct supply chain opportunities within each identified work phase, businesses within each identified geography that can deliver the service or goods sought, and the likelihood of these businesses being able to take up an opportunity to compete for this work.

| Probability of Supply Chain opportunity (Hyper Local, Local and Regional) | Descriptors  |
|---|--|
| Low   | <ul style="list-style-type: none"> <li>• Little or no established businesses offering applicable goods or services</li> <li>• Reliance on market to respond</li> <li>• No intervention from either the applicant or any local/regional stakeholders</li> <li>• Short duration of opportunity</li> <li>• Constraints on local capacity:                             <ul style="list-style-type: none"> <li>○ The project is unique to the area, and therefore limited opportunity to create a growth opportunity</li> <li>○ Comparative projects being developed in the area leading to saturation</li> </ul> </li> </ul> |
| Medium  | <ul style="list-style-type: none"> <li>• Businesses established with some appropriate skills</li> <li>• Businesses experiencing their usual levels of work in relation to the wider economy</li> </ul>   |
| High  | <ul style="list-style-type: none"> <li>• There are multiple businesses with appropriate skills</li> <li>• Long duration of opportunity</li> <li>• Comparative projects being developed in the area, with an opportunity for a growth opportunity to be created</li> <li>• Businesses have capability and capacity to take on additional contracts</li> <li>• Planned interventions from the applicant and local and regional stakeholders</li> </ul>   |

### Supply Chain Outputs:

- Defined list of goods and/or services that will be procured, by work phase, including any offsite fabrication/manufacture elements.
- The duration of all the identified elements
- A scenario-based approach to probability of supply from hyper local, local and regional businesses against the identified elements
- Size of hyper local, local and regional supply chain opportunity
  - Low scenario will represent worst case scenario to be used in all assessment work on impact

## 5. Socio-Economic Impacts

Once the above elements have been assessed satisfactorily the promoter alongside Local Authorities can now make evidenced judgements against the areas set out in NPS EN-1 (5.13.4):

- the creation of jobs and training opportunities
- the contribution to the development of low-carbon industries at the local and regional level, as well as nationally
- the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities
- any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains
- effects (positive and negative) on tourism and other users of the area impacted
- the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development
- cumulative effects - if development consent were to be granted for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region



**White Elm Solar Farm EIA Scoping  
Comments of Suffolk County Council**

Appendix D: Project Level Design  
Principles Guidance from the National  
Infrastructure Commission Design Group

**Project**

**Level**

**Design**

**Principles**

**Guidance from the**

**National Infrastructure Commission**

**Design Group**

May 2024



## The National Infrastructure Commission's Design Group

was established in 2019 to inspire renewed ambition for the quality of the UK's infrastructure. Its mission is to inspire, promote and champion design excellence on all major infrastructure projects, helping to deliver infrastructure which has social value and responds creatively to the needs of people, places and the environment.

The group brings together respected leaders in design, with experience spanning architecture, transport, landscape and engineering. They are united by a shared belief in the transformative power of great design. The Group is chaired by Professor Sadie Morgan OBE (founding partner, dRMM Architects) and its members are:

- Anthony Dewar, Civil Engineer  
Professional Head, Buildings and Architecture,  
Network Rail
- Clare Donnelly, Architect  
Director, Fereday Pollard Architects
- Andrew Grant, Landscape Architect  
Founder and Director of Grant Associates
- Hanif Kara OBE, Structural Engineer  
Co-founder and Design Director of AKTII
- Madeleine Kessler, Architect and Curator  
Principal, Madeleine Kessler Architecture
- Alister Kratt, Landscape Architect and Masterplanner  
Director, LDA Design
- Peter Maxwell, Architect and Town Planner  
Director of Design, London Legacy Development  
Corporation
- Judith Sykes, Civil Engineer  
Director, Expedition Engineering
- Louise Wyman, Chartered Surveyor and Landscape  
Architect

## Foreword from Sir John Armitt

Since publication of the Design Principles for National Infrastructure in 2020, the world has changed. The Covid pandemic, war in Ukraine and resulting inflationary pressures have all contributed to setting a different backdrop for infrastructure than existed when the Principles were first conceived.

What is impressive, therefore, is how they have stood the test of time. Four headline themes (climate, people, places and value) that remain as pertinent for major projects today as they did at the turn of the decade – and that I think will continue to be highly relevant to projects over the next two or three decades.

And there will be many such projects. Our latest National Infrastructure Assessment envisages around £70bn of public and private money being invested in infrastructure each year during the 2030s and 2040s. Before then, at least 17 new major electricity transmission projects and nine water resource projects will be required before this decade is out.

If these projects are to be successful, and meet public, political and investor expectations, they must have a focused attention on design – in its widest sense – at every single stage.

Good design is absolutely integral to successful project delivery and should not be seen as something that adds cost.

Taking care over how the physical form of a project interacts with its surroundings, enhances the natural environment and improves people's quality of life will all help secure not only procedural approvals but wider community acceptance.

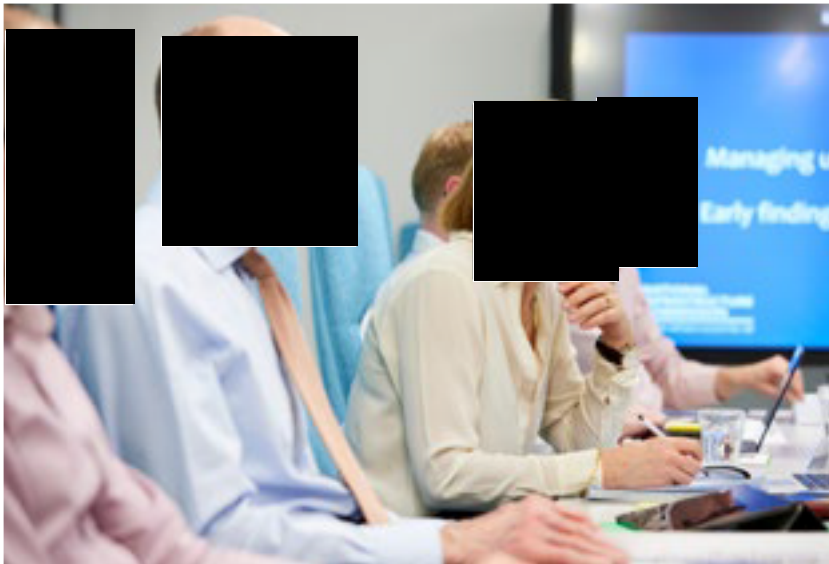
And spending time, particularly upfront at the scoping stage, to get design right first time should also help avoid unnecessary duplication, delays and cost.

*Nationally significant* projects are called that for a reason – their aims serve a public good, supporting economic and social objectives around which there is a broad consensus. So they should be designed for success: the UK cannot afford for these projects to fail.

The guidance in this document seeks to help projects secure that success, for the benefit of all.

The Commission extends its gratitude to the members of the Design Group, and wider stakeholders, who have helped develop this guidance, which we commend to all major projects.

Sir John Armitt



Sir John Armitt and Sadie Morgan at a National Infrastructure Commission meeting

## Preface from Professor Sadie Morgan

Delivering the infrastructure the UK needs for the future requires forward thinking organisations – clients, consultancies, contractors and operators – driven by a desire to solve problems across traditional boundaries.

A number of them have adopted the Commission's high level Design Principles, which have been formally endorsed by government for use by all nationally significant projects.

But the principles were only ever written as a starting point. We are pleased to present this further guidance tool to share examples of good practice and the Design Group's thinking on how to embed design principles throughout project lifecycles.

Our central advice is to:

- Make sure there is a genuine commitment from the most senior levels of the project to using a structured design process from the earliest stages
- Put principles in place before taking any decisions – and once in place, ensure they become a key part of the governance framework, informing all decision making
- Make sure that principles support the widest range of outcomes (not just operational functions) and that they are used to directly inform each design iteration
- Keep revising the principles as new information comes to light and use them to manage an evolving project effectively.

Where this is done well from the start, design principles can help:

- Generate support for schemes from stakeholders
- Deliver the widest possible benefits

- Facilitate a smoother planning and consenting process
- And avoid costly problems later in the project lifecycle.

This guidance unpacks our Design Principles to offer ideas on the kind of things that we would expect project level principles to cover, including:

- **Climate** – how the project will have the lowest possible carbon impact, how it will enhance the environment and contribute to nature recovery, as well as be ready to withstand growing climate pressures
- **People** – developing a truly inclusive and accessible design that is sympathetic to the social and community context in which it will operate
- **Places** – how the project will serve as an active steward for the local landscape, prioritising nature-based solutions and boosting a local sense of identity
- **Value** – looking beyond the site boundary at how the project can maximise the value of investment, including by working with other partners.

The Design Group’s mission is to inspire renewed ambition for the quality of the UK’s infrastructure.

So it is my hope, and that of the whole Design Group, that our ideas help inspire project directors and their design champions – but that more importantly, they feel empowered and resourced to pass on that inspiration themselves, creating infrastructure of which we can all be proud.

We look forward to hearing how project principles are being developed and would love to hear from project teams about their experiences.

Professor Sadie Morgan OBE

1

Purpose

and

scope

of

guidance

This guidance, aimed primarily at client side project directors on major infrastructure projects, explains how to develop and embed project level design principles. It can be applied to projects of all sizes, across all sectors of economic infrastructure, whether private or public sector.

1. This guidance:
  - explains why project level design principles should be made central to the delivery of major infrastructure projects
  - explains how principles can be most impactful in the very earliest stages, alongside the development of an overall design vision
  - provides an overview of the suggested scope of any set of design principles
  - illustrates how principles should be used throughout the lifecycle to support design governance and underpin delivery of the outcomes set out in the business case.
  
2. The guidance is aimed primarily at client side project directors on major infrastructure projects, whether private or public sector. Project directors should:
  - provide strategic direction and clear leadership
  - demonstrably 'own' the design process
  - maintain a clear focus on design quality throughout
  - recognise that their project represents an intervention on an existing system
  - engender collaborative behaviours to deliver clearly defined outcomes.
  
3. But project directors cannot be expected to deliver good design on their own. They will need to be supported in their role by a board level design champion, while the whole board will be accountable for the delivery of high quality outcomes for the project. And the project team, led by the director, will be responsible for defining and deploying project level design principles as part of a structured design process, with team members needing to understand how the principles will directly impact their work.



4. The National Infrastructure Commission's remit covers six economic infrastructure sectors: digital, energy, flood resilience, transport, water and waste. The approach to commissioning, funding, financing and delivering major projects varies across these sectors – and across projects within any one sector. This guidance does not explore these differences, but instead provides flexibility for projects to develop bespoke design processes and design principles that best reflect their challenges and complexities. The design process must be fit for purpose, and underpinned by principles that will drive standards and accountability.
5. This is particularly important now because the UK's economic infrastructure needs to be transformed to:
  - meet the challenge of net zero
  - provide climate resilience
  - deliver sustainable economic growth.
6. The Commission's second National Infrastructure Assessment set out proposals across all six sectors and called for increased public and private sector investment. The number of infrastructure projects should therefore increase significantly in the coming years. Some of these will be Nationally Significant Infrastructure Projects with approval through the Development Consent Order (DCO) process, as established by the Planning Act 2008, and some will be delivered through other consenting regimes. This guidance does not draw any distinction between different regimes.
7. It is essential that projects use design solutions that deliver clear objectives for a price that can be afforded and to a schedule that is acceptable. This guidance outlines how a structured approach to good design is

not about adding cost and complexity to projects: it is about developing cost effective ways to meet agreed outcomes and reducing the risk of delays.

8. Utilising a structured design process, proportionate to the size, complexity and context of the development, is the way in which all infrastructure projects should be delivered. Proceeding in any different way puts design quality and contextual integration at risk, meaning opportunities to deliver multiple environmental and community benefits will be lost.
9. This guidance applies equally to new projects and to the renewal and upgrade of existing infrastructure.

2

Why does

infrastructure

design

matter?

Infrastructure design is about so much more than aesthetics. Using an iterative, structured design process from the project outset can deliver multiple environmental, social, and economic benefits, while limiting adverse impacts.

- Design ensures that projects are delivered efficiently, underpinned by clear objectives.
- Using the design process, projects become affordable, cost effective, integrated and sensitive to environment and place.
- Using the design process from the project outset can limit the risk of increased costs, delays to delivery, and stakeholder opposition.

1. Economic infrastructure has long had the power to transform. Investment in infrastructure – for example, telecommunications, roads, railways and electricity – helps drive economic growth, impacting on people’s livelihoods and their quality of life. But simply spending money on projects is not enough. Positive outcomes are far from certain: there may be adverse impacts on the natural environment, or on groups with protected characteristics, and benefits may not always be realised.
2. Design is the iterative process within clearly defined parameters, which will help ensure:
  - project objectives are defined clearly
  - delivery is efficient
  - benefits are shared across multiple partners.
3. Through the design process, schemes can become accessible, affordable, cost effective, integrated and sensitive to environment and place. Projects should avoid the narrow, restrictive interpretation of design as simply ‘looking good’, important though that is; proper consideration of place, the natural environment and diversity issues are also crucial.
4. When projects start badly – without clear objectives, sufficient resources and required capabilities in place – it is near impossible to establish a structured, effective design process. The Infrastructure and Projects Authority’s Project Routemap provides a tested methodology for setting up major projects for success.<sup>1</sup> When infrastructure projects are not set up well, and when the design process is lacking, whole-life benefits are unlikely to ever be fully realised and the original business case may be undermined. There will be a risk of:

- increased costs
  - wasted effort
  - compromised performance
  - poorer value for money
  - loss of stakeholder support.
5. Adhering to a structured design process, underpinned by design principles, should not be seen as 'cost additional' – but the very opposite. It can avoid the reactive, ill-conceived, late changes to infrastructure projects that often cause cost escalation and programme delay. By starting well, and putting design principles in place as a key part of governance, projects give themselves the very best chance of success.
  6. Design is important for projects of every scale and type. It matters for infrastructure that is visible and used in a physical way, such as transport and energy generation, and also for infrastructure that is hidden and provides services, such as the transfer of water and wastewater in underground networks. The design process allows projects to effectively consider exactly how to define and coordinate multiple project outcomes.
  7. When projects use an effective design process and work in a collaborative, open way, then infrastructure can be delivered that will work for climate, people and places. Under the Aarhus Convention, everyone must be allowed to meaningfully participate in decision making where projects affect the environment.<sup>2</sup> Designing infrastructure well, and engaging in a genuine partnership with diverse communities and stakeholders, will help to ensure that the planning, delivery and operational phases are as efficient, effective and beneficial as possible.

8. Our infrastructure can and should be a source of national pride, expressing who we are as a society. Our cultural heritage is informed by our interactions with infrastructure, the care we take in delivering it and the way in which it shapes our lives. We should, therefore, strive to be ambitious, recognising the role infrastructure can play in transforming communities and places, while impacting positively on the environment.
9. We now face many global challenges: becoming resilient to a changing climate, responding to significant biodiversity loss, reaching net zero, and delivering sustainable economic growth. This means it has become necessary to deliver, rapidly, an extensive programme of new infrastructure, in order to provide us with energy and water security, and resilience in the face of storms, flooding and drought. Therefore, an effective approach to design is absolutely essential.
10. Public acceptance of such rapid and extensive change can best be supported by processes that are designed to achieve highest quality outcomes. And public acceptance will become easier to achieve if efforts are made to engage, and collaborate with, those directly affected by change. We know that transformative change is essential, therefore transformative thinking is also required. And that, ultimately, is why infrastructure design matters.



Northala Fields Park in the London Borough of Ealing used substantial volumes of imported construction rubble from major development projects to help create four large conical mounds, serving as a new recreational space and also acting as a natural flood defence. Since its opening to the public in 2008, local residents have been actively engaged in organising activities and programmes in the park. Photography: Marko&Placemakers



3

The

Design

Principles

for

National

Infrastructure

The Design Principles – climate, people, places and value – constitute an ambitious set of interlinked principles which apply to all projects across the six economic infrastructure sectors. The principles provide an overarching, high level vision from which project level principles should be developed.

1. The National Infrastructure Commission Design Group published the Design Principles for National Infrastructure in 2020. It did so having engaged widely with academics, architects, landscape architects, engineers, environmental bodies, government and public interest groups. This engagement identified a strong demand for an ambitious set of interlinked principles that could apply across all economic infrastructure sectors. Stakeholders told the Group that it was important to have a shared vision, with principles that recognised the wider impacts and benefits of national infrastructure.
  
2. The Design Principles are as follows:
  - **Climate** – seek opportunities to enable the decarbonisation of society through the mitigation of emissions, and allow the project to adapt over time to build resilience
  
  - **People** – design infrastructure for people, not architects or engineers; make it human scale, easy to navigate and instinctive to use, helping to improve quality of life
  
  - **Places** – provide a strong sense of identity and improve the natural and built environment; make a positive contribution to landscapes within and beyond the project boundary
  
  - **Value** – achieve multiple benefits and solve problems well; add value by defining issues clearly from the outset and providing overall direction for everyone working on the project.

3. In addition to the four principles, the Group also identified that everyone involved in projects should:
  - appreciate the wider context
  - engage meaningfully
  - continually measure and improve.
  
4. The Design Principles were kept deliberately high level to establish a fresh, unifying, overarching vision for national economic infrastructure. The Design Group had always envisaged that the principles would be used as an outline framework for more detailed design thinking on individual schemes, and for the development of project level principles.



The 128ft replacement Pooley Bridge in Cumbria is the UK's first stainless steel single span bridge and was designed to avoid the need for piers in the river, making the structure more flood resilient. Photograph by Mike Smith

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What are

project

level design

principles

and why are

they

important?

A project's design principles should help guide delivery from project definition through to decommissioning. They should directly address a project's requirements, benefits and outcomes.

- Design principles should form a key part of project governance, driving design decisions from the project outset.
- Developing design principles is an iterative, ongoing process. But once consent is achieved, they should become fixed, outlining how schemes will achieve their outcomes.
- Principles should align all parties around agreed, shared outcomes, facilitating timely, effective delivery.

1. Most infrastructure projects:
  - are inherently complex
  - take many years to be delivered
  - have a long operational life
  - deliver significant cumulative change.
  
2. Project level design principles should guide projects from their inception right through to operational use – and beyond. Proceeding without principles in place to retain consistency of design thought is inherently risky. Design principles should form a key part of project governance, providing a framework for taking design related decisions and managing an evolving project. As major projects proceed, implementing late changes becomes increasingly costly and much more difficult; having design principles in place from the outset will help to manage this risk.
  
3. The design process effectively begins in the earliest stages of all infrastructure projects, when:
  - operational requirements are defined
  - project scope is agreed
  - shared outcomes are identified.
  
4. Having a clear design vision supported by design principles is one of the most important early stage outputs. But there is no requirement for detailed design work in these early stages. Instead, the design process should focus on facilitating strategic assessment of the benefits and opportunities of different approaches, alongside the likely environmental impacts, human factors and engineering challenges. It is important to avoid becoming 'locked in' to a solution too early in the process, as this can lead to sub-optimal decision making and poorer value for money.

5. Principles should support the widest possible set of outcomes (i.e. beyond the merely operational) and these outcomes should, in turn, inform the narrative for each design principle. As the project design matures, and as the complexity of the project considerations increases, the team should plan for sufficient 'reflection time', to ensure the design principles are continuing to have the anticipated impact and that they will contribute to delivery of the final outcomes being sought.
6. Project level design principles should directly address the Design Principles for National Infrastructure of climate, people, places and value, plus any supporting organisational or sectoral principles. There should be a clear logic to the structuring of the design principles, from strategic to project level, within an easy-to-understand hierarchy.
7. A project's design principles should:
  - reflect the overarching design vision and address the agreed project requirements, benefits and outcomes
  - firmly anchor the proposal, supporting a design narrative that's relevant to the local context
  - recognise place including landscape, the natural environment, culture and heritage
  - be informed by the people affected, including residents, community groups, infrastructure users, interest groups, and local employers
  - reflect an inclusive approach to ensure equitable delivery of benefits and prevention from harm
  - demonstrate that opportunities have been identified to deliver wider benefits and outcomes beyond the project, utilising systems thinking
  - be clearly written, with quantifiable measures, so that final outcomes can be tested against them.



8. The development of design principles is an iterative, ongoing activity throughout any project. While it is important for principles to be developed from the very earliest stages, they must also evolve. The most successful schemes are those that refine their approach to reflect:
  - any significant new information coming to light
  - a deeper understanding of community and place
  - the development of detailed designs.
  
9. As the project progresses, the design principles will become increasingly 'fixed' until consent is achieved. Specific requirements and standards for each element of the scheme should then be set out in other supplementary documents, such as design codes. What is key is that at any point in time, the set of design principles should represent a coherent, visionary articulation of the scheme, including how it will achieve its outcomes. And, at an agreed point in time, the principles should become fixed, sufficient to underpin the design quality of the project, post consent.
  
10. Principles should not just 'sit on the shelf' but drive decision making on the project day-to-day, including:
  - allowing clear comparisons to be made at the option appraisal stage, about the extent to which each option will deliver the design vision in accordance with the design principles
  - informing the details and metrics for each stage of the project, including relevant success criteria and key performance indicators
  - informing project briefs and the response requirements/evaluation criteria for design and construction tenders
  - featuring significantly at all phase or stage gate reviews

- forming the basis of compliance statements to support the discharge of requirements, post consent
  - informing the final, agreed approach to benefits monitoring and measurement.
11. The design principles should be capable of aligning all parties around agreed, shared outcomes. And significant changes to the principles should always be communicated. Local communities, planning authorities, funders and other stakeholders will then have confidence that the project is being developed in a structured manner, working to an agreed set of principles. This can be a key factor in facilitating timely, effective delivery.
12. The principles will also help to foster a shared understanding across the whole project team of the outputs and outcomes being sought. **Teams should commit to a regular critique of the principles** and, when doing so, should:
- engage widely and meaningfully
  - utilise internal peer review
  - respond creatively to feedback
  - demonstrate a genuine commitment to the design process.
13. The principles will help to underline the message that everyone on the team has a role to play in good design, and discussion of the principles will help to enhance collaboration. Whenever new members join the team, and whenever specialist, external consultants are engaged, project directors should ensure that the design principles and project outcomes form a key part of the induction process.

5

The

importance

of

effective

leadership

Project directors will have overall responsibility for design quality. But all members of a project team must buy in to the design process to deliver infrastructure of the highest quality. Project directors should:

- Understand how important it is to establish and maintain a clear, unifying design direction, and work to embed an ambitious design culture from the outset.
- Ensure their team develops a sound understanding of place, community, the natural environment and economic context through inclusive consultation and engagement.
- Ensure that the board scrutinises the project's compliance with the design principles.
- Be supported by a board level design champion.

1. This guidance is targeted at project directors on the client side. Organisations will need to appoint directors who have the right skills, behaviours and experience to act as inspiring, visionary leaders throughout the lifecycle, recognising that their project is adding an intervention onto an existing system. Project directors will have overall responsibility for design whether delivered by internal teams or external consultants. Directors will need to recognise the points at which specialist expertise will need to be brought onto the project – and they will understand how important it is to establish and maintain a clear, unifying design direction.
2. The very best project directors will:
  - insist on the right behaviours being demonstrated across the team
  - embed an ambitious design culture from the very earliest stages
  - look critically at their own organisation or team, to ask whether there is sufficient capacity, capability and commitment to design as a structured process that will drive the project.
3. Project directors may need to take decisive action in the initial phases of projects to:
  - embed the required culture and foster a spirit of true collaboration from day one
  - facilitate skills development, including delivery from external training providers, where necessary
  - develop a shared understanding of likely design challenges on the scheme
  - ensure the benefits of inter-disciplinary working are recognised and monitored
  - bring in an independent advisor to provide an assessment of design maturity across the team.

4. All members of the team should understand what is meant by design quality. Project directors should inspire the team to follow a well planned design process that delivers infrastructure of the highest design quality. This will mean infrastructure:
  - is delivered on time and within budget
  - meets requirements, performs well, is reliable, durable, efficient, and easy to maintain and operate
  - acts as a 'good neighbour' to nearby communities
  - is visually appealing, has a strong identity and fits into the wider context
  - delivers multiple benefits that people value, equitably enhancing quality of life
  - impacts positively, overall, on the environment and biodiversity.
  
5. A genuine commitment to quality will have a material impact on project briefs and client requirements – and, ultimately, on any final project outcomes. Effective leadership will continually stress the importance of design process and quality outcomes, recognising that these can be strengthened via:
  - regular external scrutiny through design reviews
  - learning from other projects
  - integrated thinking
  - collaborative behaviour
  - holding each other to account.
  
6. Project directors should see the design process as a way of facilitating meaningful local consultation, providing a framework for early consideration of environmental, social and economic issues – and for identifying community ambitions. This approach can help leaders to significantly 'de-risk' projects, speeding consent and thereby saving costs. It is for project directors to decide

on the exact format local consultation should take, cognisant of the local context.

7. Project directors should ensure the project team develops a sound understanding of place, community, the natural environment and economic context to inform their work. The approach must be evidence led, should align with local plans and strategies, and be informed by well structured consultation and stakeholder engagement. This will help the project to identify wider beneficial outcomes and respond to the local context.
8. The development of design principles should take place in an inclusive and transparent manner. *All* communities and stakeholders who will be (or perceive that they will be) affected by the project should be invited to participate. The development of principles can be a useful mechanism for striking a balance between competing priorities on a project and for securing compromises between different stakeholders who may have contrasting perspectives.
9. Project directors should utilise engagement experts, as required, to ensure that engagement is:
  - inclusive, supportive and respectful
  - suitably flexible, deploying different communication methods, as necessary
  - clearly defined, well planned and regularly undertaken
  - framed by clear parameters for involvement
  - underpinned by a comprehensive understanding of community and place
  - mindful of the likely impact of the scheme on individuals and communities
  - designed to offer genuine opportunities for collaboration and benefit sharing.

10. Project directors will be responsible for ensuring a robust process is followed throughout the lifecycle to develop, test and embed design principles across the team. Further details are set out in the following section of this guidance. They will need to maintain overall coherence and manage the risk of individual disciplines developing principles that might be inconsistent with each other. Project directors should also lead the periodic review and refinement of the principles at key project milestones.
11. The project director should secure agreement from the board that it will scrutinise compliance with the principles as a key part of the scheme's overall governance arrangements. It is vital for a project to regularly assess whether it is proceeding in a manner consistent with the principles, which will therefore likely deliver the overall design vision. These assessments should be clearly documented and the board should consider public reporting of compliance.
12. Project directors should be supported by a board level design champion. Design champions will be accountable for the implementation of a sound design process, delivery of quality design outcomes and for the project maximising wider benefits. Government has already fully endorsed the principle of design champions sitting at board level. A design champion is best placed to ensure that the principles are used to truly underpin the governance of design and are not seen as an add on – or worse, ignored. This becomes particularly important should the scheme face programme or budgetary pressures – this is when it becomes vital for creative problem solving to continue to be used to ensure design integrity is not compromised.



6

Project

level

design

principles

through

the

lifecycle

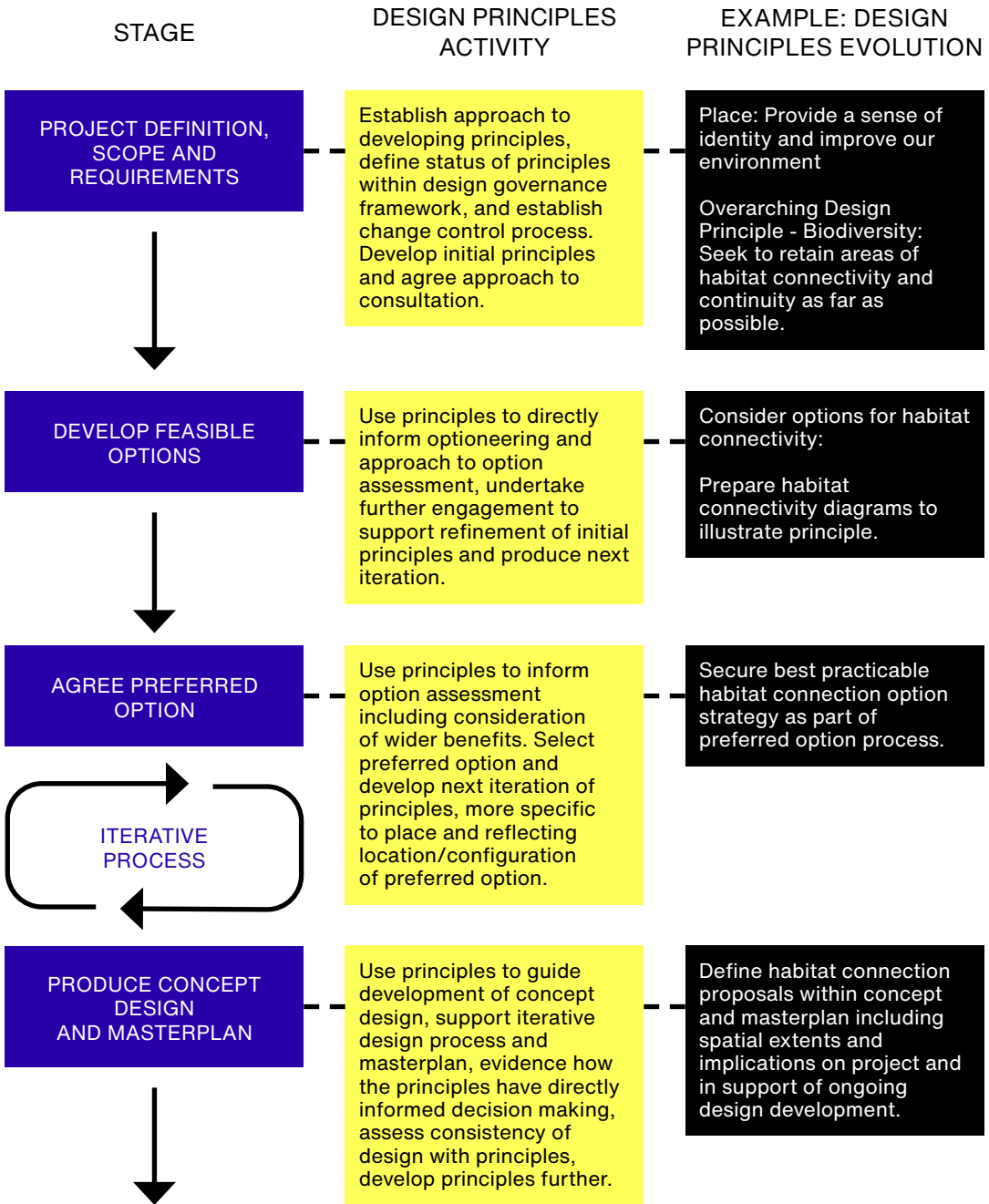
This section shows the process through which design principles can be developed and embedded within a project, from project definition through to decommissioning. It provides an illustration of how design principles can be used at each stage.

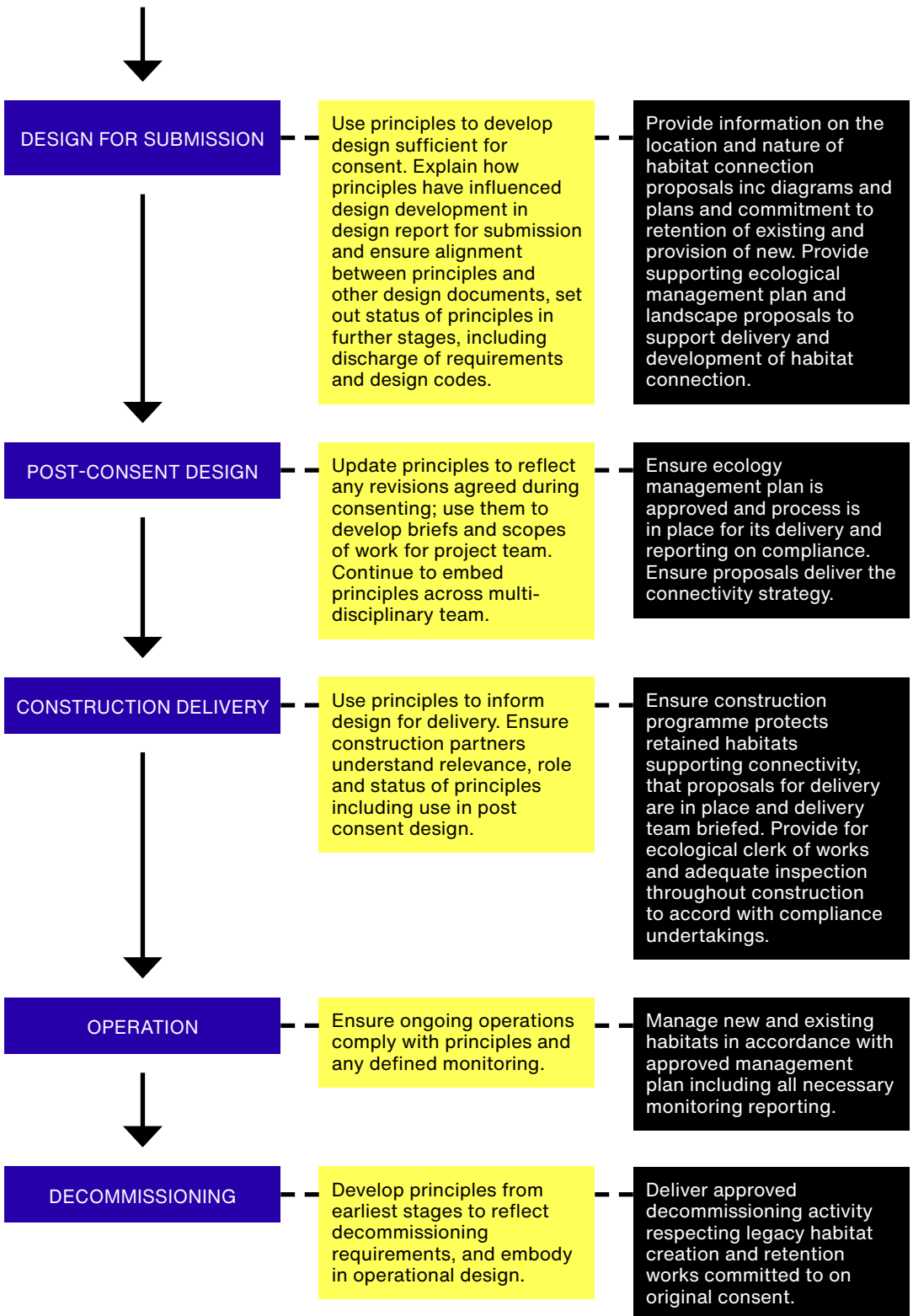
- Project teams should always adopt an approach that gives their scheme the best chance of delivering high quality design outcomes through a structured design process.
- Principles should directly inform a project's design as it matures, but they should remain overarching as the project brief expands and deepens.

1. This guidance will not attempt to set out the ideal design process that should be followed by specific projects, given the guidance covers six economic infrastructure sectors. In addition, every project will have a unique set of requirements, technical challenges, consenting issues and procurement processes. But there is value in setting out a generic lifecycle and providing an indication of how the design principles might look at each stage. An illustrative example for habitat connectivity is provided in the diagram on pages 40 and 41.
2. Broadly, the design principles should be used to directly inform the design as the project progresses, but principles should remain overarching as the project brief expands and deepens. And, in advance of construction, the principles will need to be translated into clear metrics about exactly what needs to be delivered, how, where and when, and at what cost.
3. There will need to be appropriate alignment, throughout the project lifecycle, between the various design related documents that may be generated at different stages. The whole project team must understand the role and status of these documents, likely to include:
  - the project description supporting environmental assessment
  - the design chapter within the environmental statement
  - the design and access statement or similar design report, describing the design process undertaken
  - the project's design principles, submitted for approval to support the governance of design post consent, plus any supporting design code
  - the landscape and ecological management plan
  - the construction phase delivery plan.



Knight Architects developed an innovative new standard footbridge design for Network Rail, which is cheaper and quicker to produce than a steel equivalent, and adaptable to a range of locations. Here a prototype is shown in situ just north of Craven Arms, in the Shropshire hills. Photograph by Paul White





4. This section of the guidance focuses solely on the design principles and how they will develop as the project progresses. It is recognised that the process will be iterative rather than strictly linear.

#### Project definition, scope and requirements

- develop a comprehensive understanding of the case for change and the issues that need to be addressed; set out an agreed project definition and requirements
- use early engagement to explore stakeholder issues and identify the potential to deliver wider benefits beyond any site boundary and the operation of the infrastructure itself
- define the scope and set out ambitions for the project in a short, compelling design vision, encapsulating project benefits and outcomes; secure corporate commitment to the design vision
- establish the approach to developing design principles from the design vision, set out how the principles will be incorporated within the project's framework for decision making, define their intended status and instigate a formal change-control process for them
- prepare the initial draft of design principles reflecting the requirements of the project, consult on the principles to establish stakeholder buy-in, and consider independent design review input
- use the principles to help inform the evaluation and appointment of consultant teams.

#### Develop feasible options

- undertake project optioneering, working within the framework of the design vision and design principles, and using a multi-disciplinary team
- use the principles to inform the approach to multi-

criteria assessment and ensure consideration of the wider benefits that could be realised

- utilise the mitigation hierarchy to help inform the optioneering process
- refer to National Policy Statements and relevant spatial and local plans when considering site/ route options, to ensure there is detailed, careful and comprehensive consideration of all possible alternatives
- undertake further engagement with statutory consultees, local communities, and those who will be operating the asset(s), to inform consideration of options and in support of refinement of the initial design principles
- produce next iteration of project level design principles, as required, and start to develop concept design brief.

### Agree preferred option

- undertake detailed, quantitative assessment of the options and sub-options developed previously; ensure that evaluation is undertaken clearly and transparently, with direct reference to the design vision, the design principles and the outcomes being sought
- ensure the assessment takes full account of the potential for options to deliver wider value through the project
- produce a comprehensive report summarising how each option performs and select a preferred option that: meets project requirements, will deliver wider benefits through effective alignment with other spatial plans, has the least adverse impacts, will deliver positive environmental outcomes, and is considered likely to achieve consent.



- develop next iteration of principles, which should become more specific to place, reflecting the location/configuration of the preferred option
- confirm concept and masterplan brief.

### Produce concept design and masterplan

- produce single preferred design concept within agreed scope that: meets project requirements, will deliver wider benefits, has the least adverse impacts, will deliver positive environmental outcomes, is considered likely to achieve consent, and provides sufficient flexibility to align with the agreed consenting strategy
- ensure design principles are used to guide development of the concept design, including testing different options and detailed consideration of how the asset will be used and operated
- evidence how design principles have directly informed decision making, with reference to consultation, design review, environmental assessments, and ongoing development of the design, as appropriate
- respond specifically to stakeholder feedback, including from affected communities and protected characteristics; secure agreement from receiving local authorities to support their role, post consent
- consider use of an independent design review process, which should include assessment of the consistency of the design with the project principles
- further develop the project principles to fully reflect the Design Principles for National Infrastructure (Climate, People, Places, Value), with a focus on: communities; users; diverse demographics; neighbouring interests; landscape; the natural environment; and technical challenges.

## Design for submission

- use the design principles to further develop the scheme to a level sufficient for consenting process, resolve key elements in relation to operation and maintenance while retaining flexibility for post consent design development and the construction phase
- distil important changes to the emerging design solution into key principles to be captured as commitments; continue to check that new principles are complementary to the core principles of the project
- consider undertaking a further independent design review



A 85m high summit provides a landscaped hiking trail planted with 200 trees, a ski slope and a climbing wall – all formed by the sloping roof of a huge energy from waste plant in Copenhagen, Denmark. Copenhill, designed by Bjarke Ingels Group, opened in 2017. Photograph by Laurian Ghinitoiu

- set out, in the submission documents, a clear articulation of how: the design principles have been used to influence design development; the principles are ‘embedded’ in the design submitted for consent; the design will help secure delivery of the project’s outcomes
- begin to prepare for the translation of the chosen design into works information for tenders
- set out the status of the design principles in forthcoming stages, including how they will be used to: govern the discharge of requirements where some flexibility has been approved at consent; demonstrate compliance; develop key performance indicators to help monitor and report on progress; inform design codes and other design-related documents as may be appropriate.



Inside Copenhill, modern waste treatment machinery is all arranged in height order, which forms the building’s sloped rooftop and resulting 9,000-metre-squared ski and recreational terrain. Photograph by Soren Aagaard

## Post consent design

- update design principles to reflect any revisions agreed during the consenting process
- develop detailed briefs and scopes for design development of key components of the project, ensuring full compliance with commitments made in the design principles at the consenting/planning stage; confirm basis of compliance
- ensure principles continue to be used as the basis for resolving/informing outstanding design issues
- continue to embed principles across the multi-disciplinary team, which will become increasingly important as multiple, new specialists come onto the project post consent in support of delivery/construction
- monitor and report against design outcomes and performance indicators.

## Construction delivery

- ensure alignment between design principles, any related design documents (eg design codes), and the metrics required for tender evaluations for contractors and consultant teams
- ensure the principles inform the development of design for delivery including specification and drawings
- work with construction partners to ensure they understand the relevance of design principles during the construction phase, including how principles will be used to govern post consent design development and any formal compliance requirements
- finalise design information to enable construction to take place safely and to the agreed design quality
- ensure environmental outcomes are based on the project's design principles and plan for delivery of the

outcomes via, for example, a landscape ecological management plan

- consider promotion of the design principles with all stakeholders and communities that will be impacted during construction, to demonstrate accountability and transparency
- monitor and report against design outcomes and performance indicators; undertake a lessons learned exercise on completion so that other infrastructure projects can benefit.

### Operation

- ensure ongoing operations comply with relevant design principles and defined monitoring, for example in landscape management or building maintenance
- provide relevant information to facilitate the measurement of any operational performance monitoring of the project
- ensure arrangements are in place for post project reviews (for example, benefits realisation and post occupancy evaluation).

### Decommissioning

- ensure that any decommissioning considerations are factored into the design from the earliest stages of the project
- develop design principles from the earliest stages that reflect the need to 'design for decommissioning' and explain how this phase will be undertaken in accordance with, for example, relevant standards including the waste hierarchy
- ensure that engagement activity in earlier phases of the project has incorporated plans for the eventual decommissioning phase.

5. As the project moves through the pre consent stages set out above, it is crucial that the project team record the evolution of the design principles and design changes that have been implemented, along with the supporting rationale. The use of a 'change record' will help to illustrate that the scheme is proceeding in a structured, consistent manner, giving confidence to stakeholders and planning authorities.

7

What might

be included

in any

set of

project

level design

principles?

Project level design principles should flow from the Design Principles for National Infrastructure – Climate, People, Places and Value. This section sets out how these high level principles can be used, alongside any sectoral or organisational design principles, to inform project level principles.



1. It would be contradictory for this guidance to set out exactly what any set of design principles should contain. Bespoke principles are always required, reflecting the specific places, contexts, constraints, and requirements of a project. The most impactful design principles are those that make clear, specific statements and avoid generic, vague language that could be applied to any project.
2. The Design Principles for National Infrastructure establish a framework for project level design principles. The project principles will also be informed by relevant sectoral or organisational design principles.
3. Project teams should give thought to the optimum structure, hierarchy and grouping of the principles, from strategic through to project specific. Major projects or fleets of projects may require cross-cutting principles, which would then be supplemented by principles that relate to specific places or requirements. Teams should consider the point at which design principles will likely become fixed, which is generally at consent stage, with further required detail then encapsulated in design codes, specifications, or similar.
4. Project teams should also recognise the close relationship between design, cost, deliverability and safety. Design principles should capture the importance of the construction, operational, and decommissioning phases proceeding in a way that allows for cost control, supports delivery and minimises risks to workers and end users. Good design will impact positively on all of these elements if the process is properly structured.
5. The following sections take each of the Design Principles for National Infrastructure in turn, providing further

information about the likely areas that will be covered in any set of project principles.

## Climate

6. Project teams should recognise the importance of designing across boundaries to meet the multiple challenges presented by the climate crisis. This will require a proactive approach, establishing principles that span different geographies, sectors and legislative areas.
7. Designers are uniquely placed to challenge fragmented responsibilities, putting in place principles around which different organisations can unite. Isolated solutions are unlikely to have the impact required; design principles will need to look at the environment as whole, be landscape led, and contribute to nature recovery. There will need to be alignment between the design principles and the project's documented approach to the environment, ecology and biodiversity.
8. Teams should work innovatively to reduce a project's carbon impact. Design principles should be put in place that set out:
  - how existing assets will be reused, wherever possible
  - how waste will be minimised or eliminated
  - and how materials will be used in the most efficient way possible.
9. Wherever possible, principles should set out a commitment to nature based solutions. And the design process should be used to agree how carbon emissions over the whole lifespan will be minimised, controlled and measured, in construction, operation and decommissioning phases. Design principles should

reflect wider carbon budgets, sectoral commitments and the path to net zero. There will need to be good alignment between the principles and the construction environmental management plan.

10. The design process should be used to 'build in' resilience to climate change, so that infrastructure asset owners are able to anticipate, adapt, resist, absorb, recover and transform, as set out in the resilience framework developed by the Commission.<sup>3</sup> Principles may be needed to address any interdependencies of critical infrastructure, thus avoiding catastrophic impacts associated with multiple system failures. Finally, the principles may include commitments to designing for ongoing flexibility, so that the asset, once operational, can be modified as required.

## People

11. Projects will fail unless the design process is used to develop a comprehensive understanding of the context in which assets will operate. This should include spatial and environmental considerations, social demographics, and diverse communities. The development of design principles should therefore be informed by a detailed understanding of local population, community needs, land use, amenity outcomes being sought, and any resulting impacts – including how these can be addressed.
12. There should be an understanding across the team that communities hosting infrastructure will often not be direct beneficiaries, hence the vital importance of delivering wider benefits, beyond the narrow scope of provision of a new or upgraded asset and associated

mitigation. The team should see the development of principles as providing an opportunity to engage in an early, meaningful and inclusive way with communities, and projects should avoid tokenistic 'consultation' late in the day. The project approach should provide clear parameters for involvement.

13. A genuine commitment to designing for people, will see a comprehensively inclusive design approach adopted from the outset. Projects should look beyond minimum compliance and towards better practice, avoiding the pitfall of seeking to address accessibility issues only once a solution has been developed in detail. Design principles should set out the approach that will be adopted, recognising that infrastructure schemes can include or exclude users. By designing infrastructure with human diversity at its core we can create design solutions that are accessible and inclusive to all users. This includes providing access to public infrastructure such as rail, or access to the natural environment, which might not have existed prior to the development.
14. Infrastructure projects are often places of work and the consideration of good quality and inclusive workplace environments is important during both construction and operation.

## Places

15. Design principles should reflect a commitment to landscaped, regenerative approaches, enhancing the environment and making a positive contribution to place. Designers should recognise the importance of 'stewardship' – acting carefully and responsibly and not seeking to exploit – so that schemes will provide a positive inheritance for future

generations. Design principles should set this out unequivocally.

16. Well-functioning ecosystems are central to human existence and quality of life. The UK has suffered significant decline in the natural environment and infrastructure projects should contribute to the efforts now required to address nature recovery as part of a comprehensive response to place. Design principles should explain how the requirements for biodiversity net gain, nature recovery and other environmental outcomes will be met, and how nature based solutions will be used to minimise the need for engineered solutions.
17. Projects should be ambitious, recognising that infrastructure has the potential to give places a strong sense of identity and to enable delivery of significant benefits. Project teams should embrace this fact, setting out principles that demonstrate a desire to inspire communities, enhance places, align with local plans and provide solutions that people will be proud of. Design principles should capture how the form, composition, proportion, materiality and appearance of built infrastructure reflects, and responds to, context.

## Value

18. The UK's infrastructure requires significant investment. And each scheme needs to use an effective design process to maximise the value from this investment. Project teams should identify opportunities to secure wider economic, environmental and social benefits – and should develop principles that set this out, as proof of a genuinely holistic approach. Importantly, opportunities can present themselves at any point in the project

lifecycle and the team will need to continue to work in a collaborative, multi-disciplinary way, looking to solve multiple problems with a single solution wherever possible.

19. Design principles should demonstrate a commitment to looking 'beyond the site boundary' and beyond the core operational purpose of infrastructure provision. Successful projects will develop a detailed knowledge of national, regional and local planning context, responding to policy ambitions and, ideally, making positive contributions towards them. Design principles should signal to potential partners that there are routes to effective collaboration, with infrastructure projects 'unlocking' the potential for wider benefits and boosting economic return on investment.
  
20. The monitoring and measurement of benefits is crucial. This should always be a core part of the design process and design principles should capture how it will be undertaken. A truly collaborative design process, involving all those who may be involved in subsequent data gathering, can help devise solutions. A set of design principles can act as a published commitment to measuring scheme value in its widest sense.

Case  
studies

Lower

Thames

Crossing

The A122 Lower Thames Crossing (LTC) will be the largest road building project since the construction of the M25, connecting the A2 and M2 in Kent and the M25 south of junction 29 and crossing under the River Thames through a tunnel. With 14.3 miles of new road and around 50 new bridges and viaducts, it will almost double the road capacity across the Thames east of London and help to relieve the congested Dartford Crossing. The scheme includes seven green bridges, two new public parks and around 60km of new or improved public rights of way for walkers, cyclists and horse riders.

The LTC design principles evolved from the project's design narrative, a short document developed early in the design process. It was led by the project and landscape architects, and developed through workshops with representatives of all the different project team disciplines. The process led to the route being broken down into different character areas, with the narrative identifying potential design approaches, opportunities and constraints for each. Although the narrative was used primarily as an internal document to help ensure the various design and project disciplines were united around a common design approach, stakeholders were also invited to comment. The narrative heavily influenced the proposals taken to statutory consultation.

In 2018, in parallel, National Highways published its 10 Principles of Good Design. When LTC began to define its project principles after statutory consultation, the team structured them to reference the overarching National Highways' themes (Connecting People, Connecting Places, Connecting Processes) while also capturing the key design approaches that had emerged from the narrative. There was detailed engagement with statutory stakeholders on the principles throughout the consultation process and



examination. The principles have been used to secure both overarching/project-wide design approaches and more detailed issues important to specific stakeholders and places.

As the project is now moving into the delivery stages, the development team has been holding a number of workshops with the successful contractors to emphasise the importance of the principles as they develop their detailed designs. The LTC client team has also developed assurance processes and named a design champion to oversee compliance with the design principles in collaboration with the contractors throughout the detailed design process.

The main challenge in developing the principles has been striking the right balance between specificity (to secure important commitments) and flexibility (to allow innovation and improvements to the project reference design). Other challenges have included achieving sufficient clarity in the principles, and getting the tone right for the qualitative aspects of design – wanting to be ambitious and deliverable at the same time.

LTC is a project still early in the delivery stages and without an approved DCO. But the design principles have been key in securing essential mitigations and giving confidence to stakeholders that design has been considered ‘holistically’. National Highway processes (such as taking design proposals through independent design review) have been incorporated into the principles, meaning they now have a legal underpinning that can be relied upon to influence design outcomes. The principles have also been an important part of the induction process for contractors, setting out, succinctly, the client team’s aspirations and stakeholder priorities.



(top) The project team identified an opportunity to address historic severance caused by the M25 and to provide a new bridge improving public rights of way for walkers, cyclists and horse-riders. Photograph by National Highways.

(bottom) The project's design narrative promoted the proposal to consolidate connectivity between communities, recreation routes and habitats in a single high quality green bridge across the new road. Photograph by National Highways.

Case  
studies

Tideway

Even when it rains only lightly in London, untreated sewage overflows from the Victorian sewers into the River Thames. Tideway is the development of a new ‘super sewer’, 25km long and 7.2m in diameter, running from Acton in west London through to Abbey Mills in east London. The tunnel will intercept, store and transfer sewage waste away from the Thames, protecting the river for the next 100 years. Preparatory work started in 2015 and construction has now taken place across 24 different sites. The project will complete in 2025.

The project’s design principles were developed in parallel with the designs for the project through a multidisciplinary process. Early drafts were shared with statutory stakeholders and then refined, and key issues raised through public consultation were also incorporated. As the project was seeking to secure permission for parameters through the DCO process, the principles were referenced in the Order itself to secure the salient, qualitative aspects of the design. They were also used to secure elements of mitigation.

Throughout the tendering period, the fact that the principles were part of the Order was emphasised by the client team and handed over to the successful contractors, who became responsible for delivery against the principles. The principles were a touchstone in interdisciplinary design reviews, independent design reviews, and client design assurance processes. And, with several post DCO requirements to discharge, compliance with the principles was independently monitored by external stakeholders.

The vision section of the principles document states an ambition to ‘build on Sir Joseph Bazalgette’s legacy and maintain the long term sustainability of London as a world class city and improve the quality of its largest open space,

the River Thames'. One of the main challenges has been translating this aspiration into the detail of proposals, even with over 200 separate design principles to support it. However, having this ambition so clearly stated has also made it much easier for people joining the project to quickly understand design aspirations.

The principles protected continuity in the design and safeguarded the inclusion of features important to stakeholders. For example, the recently completed extension to Putney Embankment includes new artwork by Claire Barclay to mark its location on the start line of the University Boat Race. The principle underpinning this was drafted in direct response to the wishes of the local borough and recreational boat users on this busy part of the Thames, and resulted from early public consultation exercises.

Using principles rather than proscribed design solutions has also ensured there has been flexibility for the contractors to follow distinctive placemaking design solutions at each site, while meeting project-wide aspirations. For example, the designs of the new foreshore structures at Chelsea Embankment and King Edward Memorial Park have developed in a flexible and creative way to meet the project objective 'to create new, high quality, public spaces and enhance habitats and biodiversity' through the inclusion of both attractive new public realm and intertidal terraces.



(top) The designs of the new foreshore structures at Chelsea Embankment and King Edward Memorial Park have developed in a flexible and creative way to meet the project objective 'to create new, high quality, public spaces and enhance habitats and biodiversity'. Image credit: Tideway

(bottom) New public realm proposals 'build on Sir Joseph Bazalgette's legacy ... and improve the quality of its largest open space, the River Thames'. Image credit: Tideway

# Case studies

Sizewell C



Sizewell C is a project to construct a 3,200 megawatt nuclear power station with two European Pressurised Reactors in East Suffolk. It will be capable of powering six million homes. The site extends to an area of over 600ha and lies within a designated National Landscape. The project was granted its DCO in 2022.

Design principles were established in the early project phases to govern the design of all main elements of the project – from early design thinking right through to delivery. The design principles were consulted upon during informal and formal consultation stages and were agreed with the local planning authority in support of their ongoing responsibilities to discharge DCO requirements. The design principles were subject to review from the Design Council and submitted for approval with a view to controlling the delivery of the project. Collectively, the design principles were structured to help to define and establish how the project will fulfil the criteria of ‘good design’, set out in Overarching National Policy Statement for Energy.

Design principles were split into two categories:

- Overarching design principles: structured under eight themes including project and contextually specific landscape and amenity, biodiversity, structures, safety and delivery.
- Detailed design principles: prepared to support the preparation of detailed design submitted as part of the DCO, structured under two themes – Landscape and Built Development. In the case of alternative designs, or where details were not submitted as part of the DCO, the designs must be in general accordance with the detailed design principles.



One of the challenges was to ensure the design principles provided guidance at an appropriate level of detail to deliver good design, but without defining specific outcomes that related to detailed design responses. The principles were therefore structured to support an approach to flexibility appropriate to the nature of the project and the site. It was considered key to ensure that the design principles directly informed the design process and designs submitted for DCO approval, but that they also supported ongoing design post DCO consent. Discussions with the local planning authority were extremely important in securing agreement about the level of required design commitment pre and post DCO submission.

There are many examples of the positive impacts that will result from the overall approach taken to design principles. Overarching design principle 18 related to the integration of the main power station structures into the local landscape and with existing power generation:

‘Sizewell C structures will complement the existing structures within the landscape, most notably Sizewell A and B, as far as reasonably practicable’

This principle was supported by detailed design principles including:

54 (buildings)

‘The arrangement of the turbine halls on the north-south axis of the site will be spaced symmetrically within the immediate foreground of the nuclear island buildings to provide clear separation of the volumes’

and 38 and 39 (landscape)

‘Mature screening will exploit the existing woodland at Goose Hill and Sizewell Belts to retain and complement the architectural composition of the existing power station with the new Sizewell C structures.’

‘New planting and landforms will be established at the earliest practicable opportunity.’

This ‘cascade’ of design control was further supported by a strategic diagram relating to massing and arrangement of built form, plus design commitments to coastal defences and woodland. This will support the integration of the power station in long coastal views from where this axial arrangement of buildings will be appreciated.



Sizewell C structures will complement the existing structures within the landscape, most notably Sizewell A and B, as far as reasonably practicable. Image credit: LDA Design/Grimshaw

## End notes and useful resources

1. Infrastructure and Projects Authority (2022), [Project Routemap – Setting up projects for success](#)
2. United Nations Economic Commission for Europe (1998), [UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters \(Aarhus Convention\)](#)
3. National Infrastructure Commission (2020), [Anticipate, react, recover – Resilient infrastructure systems](#)

National Highways (2018), [The road to good design](#)

National Highways (2022), [People, places and processes: A guide to good design at National Highways](#)

Network Rail (2019), [Our Principles of Good Design](#)

Water Resources All Company Working Group (2023), [Water resources: Design principles and user guidance](#)

Forthcoming publications (as at May 2024) of relevance are expected to include:

- Advice from the Planning Inspectorate on good design for NSIPs, which will illustrate how this can be achieved in practice, drawing from the evidence base
- Design principles from Natural England to inform landscape-led approaches to new reservoir developments
- Design principles for electricity transmission, developed by the Electricity System Operator, to support accelerated expansion of the transmission network

Graphic Design by Europa

Published in 2024

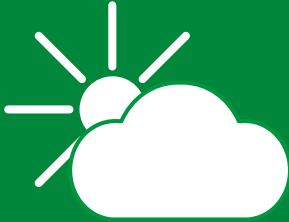
**NATIONAL  
INFRASTRUCTURE  
COMMISSION**

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**Design Group**



**White Elm Solar Farm EIA Scoping**  
**Comments of Suffolk County Council**  
Appendix E: Defining and developing the  
design champion role



Climate



People



Places



Value

# Defining and developing the design champion role

## ICE Working Paper

Summary p2

Introduction p3

Current thinking p4

Good design in projects p6

Further research and next steps p7



# Summary

The Institution of Civil Engineers (ICE) and the National Infrastructure Commission Design Group (NICDG) are proposing to work with industry stakeholders to develop and publish guidance on the requirements and competencies of the recently mandated 'design champion' role.

The goal is to define the role so project leaders can fulfil the requirement from the UK Government's National Infrastructure Strategy that all projects have a board-level design champion in place. In doing so, they can be assured that projects are progressing in line with recommended design principles.

The work will also inform ICE members about the concept and how design champions might interact with others in a team, as well as encouraging civil engineers to consider taking up such a role.

The guidance will take the form of a succinct report expanding on the practicalities and a proforma 'job description' for the role, supported by explanatory notes and case study personas of some 'typical' design champions.

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## ABOUT THIS WORKING PAPER

This paper is based on initial desk research and discussions with industry stakeholders. It details the background, context and key objectives of the proposed final report and explores further research needs and how the project is expected to develop.

We invite contributions from ICE members to the next stages of the work and the resulting report and guidance – please visit [www.bit.ly/DCWPfeedback](http://www.bit.ly/DCWPfeedback)

All infrastructure projects [are] to have a board-level design champion in place at project, programme or organisational level, supported where appropriate by design panels

National Infrastructure Strategy, November 2020

# Introduction

In November 2020, the Government published the UK's first ever 30-year [National Infrastructure Strategy](#). It included the bold requirement that all projects have a board-level 'design champion' in place by the end of 2021. The strategy was a response to the [NIC's 2018 National Infrastructure Assessment](#), which recommended the creation of the design champion role although did not specify what kind of person would fulfil it.

The design champions are to facilitate delivery of the [NIC's design principles](#), which seek to ensure that projects are designed with respect for people and places while addressing climate and delivering value – both core ICE Plan themes.

The need for this role has been enshrined in government policy, including in its [Transforming Infrastructure Performance \(TIP\) Routemap to 2030](#). However, the skillset that would constitute a 'design champion' has not yet been specified and greater definition is needed for the industry to take the concept forward.

This project builds on the [What Makes Good Design?](#) work that ICE undertook with the NICDG in 2020-21 to understand ICE members' awareness and understanding of the NIC's design principles. One of the key recommendations was for ICE to convene a forum with institutions and industry representatives "to define what a design champion is and commit to creating programmes to support development of board-level champions in all major infrastructure projects".

This project thus seeks to define the design champion role so that:

- Project leaders can fulfil the Government's mandate and be assured that their projects are progressing in line with the 'good design' principles

- ICE members can support design champions in projects and complement other built environment professionals in undertaking this role

- ICE can position its members, alongside other design professionals, to be design champions

## Defining terms

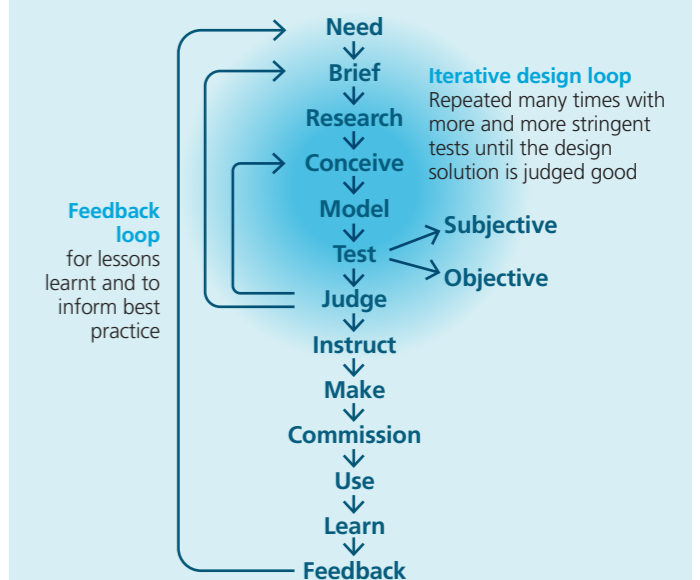
**Projects** – This potentially encompasses all infrastructure projects but, for the purposes of this work, the focus is on Nationally Significant Infrastructure Projects (NSIPs), as originally recommended in the NIC's 2018 assessment. NSIPs are defined by the Government as large-scale infrastructure developments that require a 'development consent'.

**Infrastructure** – For the purposes of this work, the NIC definition of economic infrastructure will be used and therefore includes projects in the fields of energy, transport, water and wastewater, waste, flood risk management and digital communications.

**Design** – Infrastructure design is not purely about aesthetics; it's about how something works as well as how it looks. Great infrastructure uses design to solve problems and to maximise the benefits provided over a project's whole life. When visible, it should look good, too, as projects can shape the landscape for generations.

Infrastructure design is as much about process as it is product. It is a creative approach to problem-solving that brings together technical and creative expertise and looks at a number of constraints to find a solution that provides good value and works well for climate and places, as well as the people it is being designed for. It is different from the linear, structured work-breakdown process that many projects have.

## DESIGN PROCESS



Credit: Chris Wise and Ed McCann



Design Principles for National Infrastructure  
NICDG, February 2020



# Current thinking

## Why do we need design champions?

The benefits of good design are far-reaching but if the right design and strategic decisions are not prioritised in the early stages of the process then work has to be redone, costing time and money. These decisions require both internal- and external-facing elements.

Executive directors are usually in place with specific responsibilities for 'internal-facing' elements such as cost, programme, safety, technical compliance and sustainability, but incentives for these elements alone do not add up to the complete picture. While it is assumed that the project will deliver for the people it is intended for, there is not always an executive-level director in place with responsibility for keeping the people benefits front and centre.

All infrastructure projects have people as their beneficiaries. As such, a top-level external-facing role is needed right from the start to consider the benefits to the people who use the infrastructure and to the wider population. In this way, the wider remit and related opportunities are brought to the fore, including the wellbeing benefits for users and the benefits to climate, environment and biodiversity.

By giving focus to the design at the right times, projects can also be delivered more quickly, more cheaply, using less carbon, and with better functionality.

Parallels can be drawn with assumptions that may have been made in the 1970s in the UK with regard to safety automatically being accounted for on projects and the difference that has been made now that specific roles are in place associated with safety and the higher place it now has on everyone's agenda.

## What is meant by 'board level'?

Initial discussions have tested the idea of 'board level' in terms of this being where the design champion needs to sit. There is general agreement that the champion should sit on the board responsible for delivering the project. For projects that organisations have been set up to deliver, such as HS2 or Crossrail, they should sit on the organisation's board. For projects that are delivered within government departments, or by non-departmental/arm's length bodies such as National Highways, they should sit on the project or programme board responsible for delivery.

In having the design champion at this level in the organisation that is responsible for delivery, there is the opportunity to ensure that design is considered from the initial stages of a project and that the design principles are taken into account at the highest level of projects. It means the strategic direction is set upfront and discussions about design are included alongside those about cost and programme in the direct communications at board level.

A board-level design champion can hold the long-term vision and has the accountability and responsibility necessary to test and check at a high level. They also have the mechanisms and structures in place for briefing and dialogue with other levels of the organisation to know what's happening and to influence decision-making. By having design leadership at the top of projects, we can embed an organisation-wide culture of good design and ensure it is recognised as a process that adds significant value.

## What is the role of a design champion?

The role, and the resources needed to support it, will change to accommodate different phases of a project. Overall, they will be accountable for delivering coherent good design that drives value across the project, including possible cost and programme benefits. They will have the people benefits of the project at the core of their remit and be responsible for constantly querying the design to ensure that the design principles are delivered in practice and that the outcomes meet the needs of users.

At the early stages, the design champion will ensure that the NIC design principles are used as a jumping-off point for the development of project-specific design principles that are included in the vision and the brief and used as a tool for testing feasibility. They will be responsible for creating an environment that allows good design to flourish. They will be involved in setting up appropriate governance structures so that good design is incentivised. They will break down silos, bring people together and join up and streamline diverse processes. They will guide and champion an iterative design process to test the best way of achieving the design principles.

The design champion will ensure that design reviews are taking place and that the outcomes of reviews are implemented, that the design principles are not lost during the procurement process and that the right designers are procured at the right time. As projects progress through construction, they will be responsible for ensuring that the design principles are not undermined. Lesson sharing of what went well and what didn't, during and at the end of the project, will be an important part of the role.

## Qualities of a design champion

**EXCELLENCE**  
**COMMUNICATION**  
**SIGNIFICANT**  
**EXPERIENCE**  
**GRAVITAS**  
**DIVERSITY**  
**OF THOUGHT**  
**ADVOCACY SKILLS**  
**ABILITY**  
**COMMITMENT**  
**AUTHENTICITY**  
**PERSPECTIVE**

## What attributes and experience are needed?

A design champion is someone with sufficient gravitas and ability to hold the project team to account in terms of a macro vision of design. They will be able to see the bigger picture as well as having the skills in design to understand the wider remit and the opportunities and benefits that the project can bring. They will complement the skills of other board members.

The champion will have significant design experience (refer to the definition of design on page 3), a commitment to design excellence and be embedded enough in the design process to promote technical excellence and drive changes where needed. They will have experience of setting and upholding design priorities for large, complex projects, in the context of cost and programme pressures, and will have excellent advocacy skills to communicate the value of design to the rest of the board.

They will need an understanding of how design can contribute to sustainability and low carbon, of community and stakeholder engagement and the contribution this can make to design decision-making, and of how public sector procurement processes can be structured to deliver design quality.

Key skills will be similar to those needed to promote a Development Consent Order (DCO) for NSIPs and will include authenticity, communication, understanding, listening, diversity of thought, perspective and an ability to foster and promote a culture that supports constructive challenge.



# Good design in projects

The following projects have been proposed as examples of good design that could be explored further to better understand the roles in a team that are involved in putting good design into practice.



## Orientkaj and Nordhaven, Copenhagen

These two metro stations, one above ground and one below, connect Copenhagen's northern docklands, one of Europe's largest urban regeneration projects.

They have been designed as an innovative prototype to inform the style of future stations along the extended line. The principle of contextual place-making was exemplified in the distinct visual style of the design, which retains and is inspired by the past industrial identity of the area.

Passenger impacts are at the forefront of the design – wayfinding is supported by bold coloured panelling that guides passengers to the relevant interchange/exits so that they can quickly orientate themselves and transfer between services.



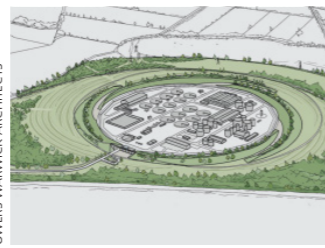
## London 2012 Olympics

A core ambition of the 2012 Olympic and Paralympic Games bid was to create a sustainable legacy of social, economic and physical regeneration. Key to this was the creation of a park with a coherent and relevant sense of place.

The Olympic Delivery Authority prioritised design and artistic excellence in its design team selection criteria with an overarching commitment to meet the needs of all people using the park both during and after the games.

The focus was on delivering exceptional sustainable and inclusive design standards, with eight core objectives to assess design quality: value for money; on time; for purpose; legacy; environment; health and wellbeing; safe and secure; and inclusion.

The governance structure promoted these principles throughout. Crucial to success was a board-level role that championed design in the early stages, leading to a culture of design that was supported by everybody at board level.



## Cambridge wastewater treatment plant relocation

This is the first water-sector NSIP to adopt the DCO planning route. In preparation for the DCO submission, the team has focused on demonstrating 'good design' using the NIC's design principles framework of climate, people, places and value.

Having a controlling mind on the design has enabled the vision to be held and generated an industry-leading design incorporating technologies that will deliver net-zero carbon benefits, a landscape-inspired physical design and cleaner/greener sustainable outcomes to benefit the environment and local communities.

In line with the NIC's design principles, ambitions have been concentrated on connecting people, places and processes to ensure positive opportunities come from the scheme. Use of this narrative in the tender process has helped to carry the principles through to construction.



## Lower Thames Crossing

This will create a new tunnel under the River Thames to connect Kent, Thurrock and Essex. It will double capacity across the river east of London and is the largest single road investment since the M25.

As a result, the design process has been subject to one of the UK's most comprehensive consultations ever undertaken. The design team has focused on three objectives – legacy, enhancement and placemaking – and used a design narrative to aid ongoing consultation. This has helped them to formulate its vision and how it can be achieved and has supported the incorporation of a series of enhanced design features into the DCO application.

# Further research and next steps

The next stage of the project is to evolve a brief for design champions that can work across different infrastructure sectors. We will do this by working in collaboration with other institutions and key projects to test the following questions in more detail:

- Is there also a need for a design champion to sit at board level within a parent-company governance structure as well as on the board of the organisation responsible for project delivery?
- What does a proforma job description look like for the role in terms of the skills, qualifications and experience needed?
- Will the role, responsibilities, qualities or skills of a champion vary depending on the project set-up or type of board?
- How has good design been put into practice on projects where somebody has essentially already taken this role on?
- How are different infrastructure project boards configured and where would the design champion fit among other roles?

Discussions will also be broadened to include, where possible, the following organisations:

- Arts Council
- Association of Consultancy and Engineering
- Design Council
- Engineering Council
- Infrastructure and Projects Authority
- Landscape Institute
- Major Projects Association
- Mayor's Design Advocates
- National Infrastructure Planning Association
- Royal Institute of British Architects
- UK Green Building Council

– and projects selected from the following:

- A14 Cambridge to Huntingdon improvement scheme
- A303 Stonehenge
- Cambridge wastewater treatment plant relocation
- Crossrail
- CCUS programme
- HS2 – Euston and Western leg
- London 2012 Olympics
- Lower Thames Crossing
- Milau Viaduct, France
- Orientkaj and Nordhaven, Copenhagen
- Oxford flood alleviation
- Rotterdam Centraal, Netherlands
- Sizewell C
- Thames Tideway Tunnel
- Transpennine route upgrade

Historical (e.g. original London Underground design) and futuristic (e.g. Hyperloop) case studies could also be explored.

Outputs of the next stage of research will include a report to government on the requirements/competencies recommended. This will be articulated by creating a 'job description' for the role, supported by explanatory guidance notes aimed at project leaders to support their recruitment and development of design champions.

Personas of some 'typical' design champions will be created. These will be produced as case-study visual materials in the final printed pack. They will also be animated and narrated in a series of short films in which the persona will role-play how to address some hypothetical but typical issues.

We are keen to hear from any teams from the projects mentioned above or from other NSIPs that would like to be part of discussions, and welcome any questions or comments about this Working Paper – visit [www.bit.ly/DCWPfeedback](http://www.bit.ly/DCWPfeedback)

## What does a job description look like for the role in terms of the skills, qualifications and experience needed?

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#### UN Sustainable Development Goals (SDGs)

Linking our work back to the [UN Sustainable Development Goals](#) is a core part of ICE's plan and mission. This paper ties in with the following SDGs:



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## **White Elm Solar Farm**

### **EIA Scoping**

#### **Comments of Suffolk County Council**

Appendix F: Extracts from Suffolk Minerals  
& Waste Local Plan, and Babergh and Mid  
Suffolk Joint Local Plan

**Minerals consultation and safeguarding areas**

5.46 Paragraph 143 of the NPPF states that in preparing local plans, local authorities should:

"define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked; and define Minerals Consultation Areas based on these Minerals Safeguarding Areas."

5.47 The County Council has defined the Minerals Safeguarding Areas (MSAs) based upon sand and gravel resource information provided by the British Geological Survey. The Minerals Consultation Areas (MCAs) are slightly larger because a buffer of 250 metres has been added around the edges. This additional buffer is designed to avoid potential sterilisation issues arising because of conflicts with potentially sensitive land-uses such as proposed residential development. It is expected that Local Plans will include policies that safeguard minerals if the County Council highlights particular sites during their consultation stages.

**Policy MP10: Minerals consultation and safeguarding areas**

The County Council will safeguard:

- a) those Minerals Safeguarding Areas located within the Minerals Consultation Areas identified on the Proposals Map from proposed development in excess of five Ha. The County Council will, when consulted by the Local Planning Authority, object to such development unless it can be shown that the sand and gravel present is not of economic value, or not practically or environmentally feasible to extract, or that the mineral will be worked before the development takes place or used within the development;
- b) areas falling within 250m of an existing, planned or potential site allocated in the Plan for sand and gravel extraction. The MPA will advise the Local Planning Authority whether any proposed development might prejudice the future extraction of minerals and should be refused, or whether such development itself might be prejudiced by proposed mineral working.

District and Borough Councils should consult the County Council when a proposal falls within the Minerals Consultation Area as defined on the Proposals Map. The County Council will then refer to Policy MP10 before providing a consultation response. Responsibility for any mitigation required falls on the development that receives planning permission last.

**Safeguarding of waste management sites**

- 6.34 The safeguarding of waste sites is necessary to protect them from other forms of development which might either directly or indirectly impact upon waste development. Likewise, applications for new development in the proximity to existing or proposed waste development should take into account any potential conflicts.

**Policy WP18: Safeguarding of waste management sites**

The County Council will seek to safeguard existing sites and sites proposed for waste management use as shown on the Proposals & Safeguarding Maps and will object to development proposals that would prevent or prejudice the use of such sites for those purposes unless suitable alternative provision is made.

Development proposals in close proximity to existing sites, should demonstrate that they would not prejudice or be prejudiced by a waste management facility. The safeguarding policy will also apply to any site where planning permission has already been granted.

Where existing business or other use could have a significant adverse effect in any proposed new development, the applicant must provide suitable mitigation before the development is completed so that the existing use is not disadvantaged by new development.

District and Borough Councils should consult the County Council when a potentially conflicting proposal falls within the 250 or 400 metre safeguarding zones as defined in the Appendix 3 Safeguarding Maps. The County Council will then refer to Policies WP18 before providing a consultation response.



## Policy LP16 - Biodiversity & Geodiversity

- 1) All development must follow the biodiversity mitigation hierarchy.
- 2) Development must:
  - a) Protect designated and, where known, potentially designated sites. Proposed development which is likely to have an adverse impact upon designated and potentially designated sites, or that will result in the loss or deterioration of irreplaceable biodiversity or geological features or habitats (such as ancient woodland and veteran/ancient trees) will not be supported;
  - b) Protect and improve sites of geological value and in particular geological sites of international, national and local significance;
  - c) Conserve, restore and contribute to the enhancement of biodiversity and geological conservation interests including Priority habitats and species. Enhancement for biodiversity should be commensurate with the scale of development;
  - d) Where possible plan positively for the creation, protection, enhancement and management of local networks of biodiversity with wildlife corridors that connect areas. This could include links to existing green infrastructure networks and areas identified by local partnerships for habitat restoration or creation so that these ecological networks will be more resilient to current and future pressures;
  - e) Identify and pursue opportunities for securing measurable net gains, equivalent of a minimum 10% increase, for biodiversity. The Councils will seek appropriate resources from developers for monitoring of biodiversity net gain from developments. Where biodiversity assets cannot be retained or enhanced on site, the Councils will support the delivery of net gain in biodiversity off-site; and
  - f) Apply measures to assist with the recovery of species listed in S41 of the NERC Act 2006.
- 3) Development which would have an adverse impact on species protected by legislation<sup>26</sup>, or subsequent legislation, will not be permitted unless there is no alternative and the LPA is satisfied that suitable measures have been taken to:
  - a. Reduce disturbance to a minimum;
  - b. Maintain the population identified on site; and
  - c. Provide adequate alternative habitats to sustain at least the current levels of population.
- 4) Where appropriate, the LPA will use planning obligations and/or planning conditions to achieve appropriate mitigation and/or compensatory measures and to ensure that any potential harm is kept to a minimum.

<sup>26</sup> Legislation including but not exclusively - The Conservation of Habitats and Species Regulations (2017), the Wildlife and Countryside Act (1981), the Protection of Badgers Act (1992), and listed as Priority Habitats and Species (s41 Natural Environment and Rural Communities Act (2006))



Policy LP16 – Biodiversity & Geodiversity Supporting Text:

## LP16 - Biodiversity and Geodiversity

### Policy background and explanation

- 15.08 The NPPF advocates that local plans should contribute to, and enhance, the natural and local environment by protecting and enhancing sites of biodiversity or geological value and minimising impacts on and providing measurable net gains for biodiversity. Development should adhere to the Biodiversity Mitigation Hierarchy; Avoid, Mitigate or Compensate, as set out in paragraph 180(a) of the NPPF and Planning Practice Guidance (PPG) for the Natural Environment (para 19).
- 15.09 Protection for internationally and nationally protected sites is established in legislation. At an international and national level, this includes Special Protections Areas (SPAs), Special Areas of Conservation (SACs), Ramsar sites and Sites of Special Scientific Interest (SSSIs). Proposals that would result in significant effects on these sites, either alone or in combination with other plans and projects, should be refused, unless mitigation measures can be applied to avoid adverse effects on site integrity. Only in exceptional circumstances where a suitable compensation strategy exists and where there are 'imperative reasons of overriding public interest' would development that causes harm to a SPA, SAC or Ramsar sites be permitted.
- 15.10 Sites of Special Scientific Interest (SSSIs) are protected through the Wildlife and Countryside Act 1981 (as amended). The NPPF states that development on land within or outside of an SSSI likely to have an adverse effect on an SSSI should not normally be permitted. An exception should only be made where the public benefits of development clearly outweigh the impacts.
- 15.11 Priority species and habitats are identified by the UK post-2010 Biodiversity Framework. The NERC Act 2006 requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. Known as the Section 41 list, this should be used to guide decision makers in implementing their duty under Section 40 of the NERC Act to have regard to the conservation of biodiversity in England when carrying out their normal functions: England Biodiversity Strategy 2020, Biodiversity Net Gain initiative and the latest published version of the Natural England Biodiversity Metric are designed to assess changes to biodiversity value as a result of development or land changes and can be an essential method to ensure net gains are achieved.
- 15.12 In order to meet the biodiversity net gain initiative, development proposals will be required to meet a minimum of 10% increase or in line with Government requirements if greater.
- 15.13 At the local level, designations in Babergh and Mid Suffolk comprise of County Wildlife Sites, County Geodiversity Sites/Regionally Important Geological and Geomorphological Sites, Local Nature Reserves and Priority habitats and species. For the purposes of this policy, all of these are also designated sites.
- 15.14 Green infrastructure refers to a network of spaces and linkages that are generally valued for their wildlife, geological, landscape or historic importance and may also have recreational value and help reduce flood risk. Although often important in their own right, when considered as a holistic network they provide much greater benefits. Emphasising the importance of green infrastructure creation, protection conservation and enhancement, ensures an improved and healthy environment that is available for



present and future communities. These improvements can include reducing vulnerability and increasing resilience to extreme weather events and flooding through measures such as SuDs and green roofs for example.

- 15.15 To create, protect and enhance ecological networks, the NPPF advises that biodiversity should be conserved and enhanced at a landscape-scale across local authority boundaries. The documents titled A Green Infrastructure Framework for Babergh District (2012) and the Haven Gateway Green Infrastructure Strategy for Ipswich Policy Area (2015), identify potential wildlife corridors (river and green corridors) that would benefit from enhancement. The Suffolk Nature Strategy identifies a large area of Babergh and the south of Mid Suffolk as 'South Suffolk ancient woodland clusters' which is one of the areas of principal importance for landscape-scale conservation in Suffolk, along with the two AONBs.
- 15.16 The Plan seeks to ensure that all new development secures high standards of design and green infrastructure which creates attractive and sustainable places where people want to live and spend time. Networks of green infrastructure should be provided across new developments linking with existing ecological networks.
- 15.17 Enhancement for biodiversity could include: watercourse improvements (such as along river corridors and undisturbed river banks) to benefit biodiversity and improve water quality, habitat creation, wildlife links (including as part of green or blue infrastructure) and building design which creates wildlife habitat (e.g. green roofs, hedgehog friendly fencing, bird, insect and/or bat boxes) relevant to local conservation priorities.
- 15.18 The Councils are also working on an emerging Green Infrastructure Strategy to support the Councils' adopted Biodiversity Action Plan. Furthermore, a Biodiversity Supplementary Planning Document will be produced.

## Policy LP19 - The Historic Environment

1. Where an application potentially affects heritage assets, the Councils will require the applicant to submit a heritage statement that describes the significance of any heritage asset that is affected including any contribution made by their setting. The level of detail should be proportionate to the asset's importance and sufficient to understand the potential impact.
2. In addition, where an application potentially affects heritage assets of archaeological interest, the heritage statement must:
  - a) Include an appropriate desk-based assessment and, where necessary, a field evaluation by a suitably qualified person; and
  - b) If relevant, demonstrate how preservation in situ of those archaeological assets can be achieved through the design of the development and safeguarding during construction.
3. The Councils will:
  - a. Support the re-use/ redevelopment of a heritage asset, including Heritage at Risk and assets outside settlement boundaries, where it would represent a viable use, and the proposal preserves the building, its setting and any features which form part of the building's special architectural or historic interest;
  - b. Support development proposals that contribute to local distinctiveness, respecting the built form and scale of the heritage asset, through the use of appropriate design and materials;
  - c. Support proposals to enhance the environmental performance of heritage assets, where the special characteristics of the heritage asset are safeguarded and a sensitive approach to design and specification ensures that the significance of the asset is sustained; and
  - d. Take account of the positive contribution that the conservation of heritage assets can make to sustainable communities, including their economic vitality.
4. In order to safeguard and enhance the historic environment, the Councils will have regard (or special regard consistent with the Councils' statutory duties) where appropriate to the historic environment and take account of the contribution any designated or non-designated heritage assets make to the character of the area and its sense of place. All designated and non-designated heritage assets must be preserved, enhanced or conserved in accordance with statutory tests<sup>31</sup> and their significance, including consideration of any contribution made to that significance by their setting.
5. When considering applications where a level of harm is identified to heritage assets (including historic landscapes) the Councils will consider the extent of harm and significance of the asset in accordance with the relevant national policies. Harm to designated heritage assets (regardless of the level of harm) will require clear and convincing justification in line with the tests in the National Planning Policy Framework.



- 6. Proposals which potentially affect heritage assets should have regard to all relevant Historic England Advice and Guidance.**
- 7. Where development is otherwise considered acceptable, planning conditions/obligations will be used to secure appropriate mitigation measures and if appropriate a programme of archaeological investigation, recording, reporting, archiving, publication, and community involvement; to advance public understanding of the significance of any heritage assets to be lost (wholly or in part); and to make this evidence and any archive generated publicly accessible.**

<sup>31</sup> Planning Listed Building and Conservation Area Act 1990, Sections 16, 66 and 72.

Policy LP19 – The Historic Environment Supporting Text:

## LP19 - The Historic Environment

### Policy background and explanation

- 15.28 Babergh and Mid Suffolk have a considerable wealth of historic settlements and buildings which contribute to the area's distinctiveness and make it an attractive place to live and work. The Planning (Listed Buildings and Conservation Areas) Act 1990 contains statutory provisions relating to the management of the historic environment, however local authorities may develop policies through their local plans. The NPPF advocates that local plans should set out a positive approach to the conservation and enjoyment of the historic environment, including heritage assets most at risk.
- 15.29 Heritage Assets are defined by the NPPF as 'A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest'. It includes nationally designated heritage assets, other non-designated heritage assets, Scheduled Monuments and sites of potential archaeological interest.
- 15.30 The designated heritage assets in Babergh and Mid Suffolk comprise of some 7,000 Listed Buildings, 60 Conservation Areas, 72 Scheduled Ancient Monuments and 7 Registered Parks and Gardens. In addition, there are other buildings and features which make an important contribution to the character and appearance of the area. These may not be of sufficient quality to be designated as a heritage asset but are important in reinforcing a sense of local identity. An Historic Environment Record is maintained by SCC, which includes details of local archaeological sites and finds, historic buildings and historic landscapes.
- 15.31 Where heritage assets of archaeological interests are likely to be affected, a conservation strategy, including details of recording, mitigation, repair preservation, protection and management, as appropriate, will be required.
- 15.32 Some designated heritage assets are known to be at risk through neglect and decay, or are vulnerable to becoming so. The authorities will continue to monitor Heritage at Risk and will work with Historic England and other bodies to secure appropriate solutions.

15.33 In exceptional circumstances, permission may be granted for development which would not normally be acceptable in order to secure the long-term future of the designated asset. This is known as 'enabling development' and should only be carried out as a last resort in line with the guidance produced by Historic England. In such circumstances, the Councils will assess whether the benefits of a proposal, which would otherwise conflict with planning policies, but would secure the future conservation of a heritage asset, outweighs the disbenefits of departing from plan policies.

15.34 Proposals which physically affect Scheduled Monuments require Scheduled Monument Consents in addition to any planning permission and/or Listed Building Consent required. Applications for Scheduled Monument Consents must be made to the Secretary of State for Digital, Culture, Media and Sport before any work may be carried out which might affect a monument either above or below ground level. Further information on the application process for Scheduled Monument Consent is available on Historic England's website<sup>30</sup>.

<sup>30</sup> <https://historicengland.org.uk/advice/planning/consents/smc/>



## **Policy LP25 - Energy Sources, Storage and Distribution**

- 1. Renewable and low carbon, decentralised and community energy generating proposals will be supported subject to:**
  - a. The impact on (but not limited to) landscape, highway safety, ecology, heritage, residential amenity, drainage, airfield safeguarding and the local community having been fully taken into consideration and where appropriate, effectively mitigated;**
  - b. Where renewable or low carbon energy designs are to be incorporated within a development, an integrated approach being taken, using technology that is suitable for the location and designed to maximise operational efficiency without comprising amenity;**
  - c. The impact of on and off-site power generation infrastructure<sup>36</sup> being acceptable, having regard to other policies in this Plan;**
  - d. The provision of mitigation, enhancement and compensation measures when necessary; and**
  - e. Approval of connection rights, and capacity in the UK power network, to be demonstrated as part of the planning application (where applicable).**
- 2. The relevant LPA will normally use conditions attached to planning consents for energy development schemes to ensure the site is restored when energy generation ceases or becomes non-functioning for a period of six months.**
- 3. Where proposals for renewable and low carbon energy impact on nature conservation sites<sup>37</sup>, the Areas of Outstanding Natural Beauty, or the setting of heritage assets (including conservation areas), the applicant must be able to convincingly demonstrate that potential harm resultant from development can be effectively mitigated and that there are no alternative sites available within the District or for community initiatives within the area which it is intended to serve. This includes providing underground power lines and cabling.**

<sup>36</sup> Generation infrastructure includes over-head cables, cable runs, invertors, control buildings, security fencing and highway access points.

<sup>37</sup> Nature conservation sites include : SSSI, SAC, SPA, NNR, Ramsar Sites, and Local Nature Reserves

Policy LP25 – Energy Sources, Storage and Distribution Supporting Text:

## LP25 - Energy Sources, Storage and Distribution

### Policy background and explanation

- 15.53 The NPPF proposes that 'the planning system should support the transition to a low carbon future in a changing climate'. Paragraph 156 of the NPPF states that Local Planning Authorities should support community-led initiatives for renewable and low carbon energy.
- 15.54 The policy on Energy Sources, Storage and Distribution is aimed at encouraging and facilitating the development of renewable and low carbon energy in the Babergh and Mid Suffolk Districts. This is in line with national policy stating that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, as well as supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development.
- 15.55 The Plan supports proposals for renewable and low carbon energy development providing that any identified potential harm on Special Protection Areas, Special Areas of Conservation, Sites of Special Scientific Interest, AONB designations or Local Wildlife Designations can be effectively mitigated.
- 15.56 The Plan seeks to support proposals for low carbon energy systems especially where networks can be expanded to accommodate new and existing developments over time. Networks could include, for example, specifically designed Combined Heat and Power systems (CHP) linked to district heating networks or utilising existing waste heat from industrial uses/ existing power stations through a district heating network. These types of systems represent a particularly efficient use of energy and should be considered by developers in new proposals.
- 15.57 The potential for new standalone technologies has not been investigated within the Districts however, there may be interest in developing suitable schemes in the area. The Plan seeks to support proposals which are appropriate in scale, design and location.



## Policy LP27 – Flood risk and vulnerability

Proposals for new development can be approved where:

1. The Strategic Flood Risk Assessment, as a starting point, has been used to assess whether the proposal is at risk of flooding and any impact of the proposal on flood risk. Other available flooding evidence should also be considered where it is relevant and/or is more up to date;
2. In areas at medium or high risk from flooding, it has been soundly demonstrated that the new development or intensification of development, can be made safe for its lifetime without increasing flooding elsewhere. This includes addressing the 'sequential test'; where needed the 'exception test' and also a site specific flood risk assessment;
3. Mitigation is provided against existing and potential flood risks throughout the life of the development (including fluvial, pluvial, tidal and sewer flooding) through application of a sequential approach to flood risk within the design and layout of the site, the implementation of Sustainable Drainage Systems (SuDS), and avoiding or mitigating risks to ground or surface water quality;
4. Above ground, appropriate SuDS are incorporated within new developments unless it can be demonstrated that ground conditions are unsuitable for such measures, and take these opportunities to provide multifunctional benefits, including biodiversity, landscape, amenity and water quality enhancement (but excluding public open space);
5. Details appropriate to the scale of development are provided regarding how on-site surface water drainage will be managed so as to not cause or increase flooding elsewhere. This includes taking account of the cumulative impact of minor developments;
6. Opportunities to provide betterment of greenfield runoff rates to reduce the overall risk of flooding, have been provided wherever possible;
7. In circumstances requiring surface water management measures (including rain water harvesting), adequate mitigation which removes any increased flood risks and/or detrimental impacts are provided to support any planning application to the satisfaction of the Lead Local Flood Authority;
8. Further indicative details of long-term maintenance, management and where appropriate adoption by an appropriate body are provided at application stage; and
9. There is no unacceptable impact upon areas identified as vulnerable to coastal erosion.

Policy LP27 – Flood risk and vulnerability Supporting Text:

## LP27 – Flood risk and vulnerability

- 15.63 The National Planning Policy Framework sets out what the planning and flood risk requirements are for local authorities in producing Local Plans and for decision taking on planning applications. Incidents of flooding are expected to increase due to the effects of climate change. The sources of flooding can vary and include rivers and streams, the sea, surface water, groundwater and drainage systems. The Strategic Flood Risk Assessment is a key evidence document to identify and manage flood risk from all sources across the Plan area.
- 15.64 Whilst neither of the Districts have major flood risk areas there is a small section of estuary which is threatened by coastal erosion on the Shotley Peninsula and there are areas across both Districts which suffer from localised flooding. Localised flooding is mainly a result of surface water flooding which has potential to be addressed through measures to improve drainage channels.
- 15.65 The general approach to flood risk is to seek to direct development away from the areas at highest risk or where this is unavoidable, that development is made safe for its lifetime without increasing flood risk elsewhere. Applicants are required to have regard to the relevant Strategic Flood Risk Assessment when proposing development. Where necessary, a site specific flood risk assessment should be carried out. The sequential test set out in national planning policy should be followed.
- 15.66 Early consideration should be given to the potential to use SuDS to identify when/where the use of such technologies is feasible and to also identify which type of SuDS is most appropriate to local site conditions. The Lead Local Flood Authority is SCC. Further information on local SuDS guidance can be found in the [Suffolk Flood Risk Management Strategy](#).

### COASTAL CHANGE

- 15.67 The Essex and South Suffolk Shoreline Management Plan 2 (2010) identifies an area in Babergh within which development should be restricted due to pressure from coastal erosion. This relates to the eastern section of Babergh known as the Shotley Peninsula, along the estuary.



## Policy LP29 - Safe, Sustainable and Active Transport

- 1) All developments will be required to demonstrate safe and suitable access for all and must prioritise sustainable and active transport and maximise the opportunities to utilise these modes in accordance with the transport hierarchy. Where possible, active travel is to be tied in with the green infrastructure network to support net environmental gains.
- 2) Development will be expected to contribute to the delivery of sustainable transport strategies for managing the cumulative impacts of growth, whilst protecting and enhancing the Public Rights of Way network.
- 3) All development should be informed by the relevant parking guidance<sup>40</sup>, with adequate access for servicing and emergency vehicles.
- 4) Where necessary, development will be expected to provide home to school transport contributions.
- 5) Development proposals that are expected to, or likely to cause a significant increase in transport movements must:
  - a) Be supported by a transport statement and if appropriate a transport assessment<sup>41</sup>; and
  - b) Provide a travel plan informed by the relevant County<sup>42</sup> / National Guidance to mitigate the highway impact of development and maximise sustainable transport modes.
- 6) Significant impacts on highway safety or the function of the highway network must be mitigated. Impact on highway safety must not be unacceptable and the residual cumulative impacts on the road network must not be severe.

<sup>40</sup> Currently the Suffolk Guidance for Parking (updated May 2019)

<sup>41</sup> Indicative thresholds: a transport statement will be required for residential developments between 50 and 80 dwellings and a transport assessment should accompany residential developments of over 80 dwellings, however other circumstances will also be considered. Non-residential development will be considered on a case by case basis. The scope of transport statements and assessments should extend across administrative boundaries of the LPA where it is appropriate to do so.

<sup>42</sup> <https://www.suffolk.gov.uk/planning-waste-and-environment/planning-and-development-advice/travel-plans/>

Policy LP29 – Safe, Sustainable and Active Transport Supporting Text:

## LP29 - Safe, Sustainable and Active Transport

### Policy background and explanation

- 16.09 This policy has aims to ensure accessibility for all and to deliver sustainable development. It also seeks to provide a suitable policy framework for more detailed considerations of planning around transport and accessibility.
- 16.10 The National Planning Policy Framework states that developments that will generate significant amounts of traffic should provide a travel plan, to set out measures to facilitate sustainable modes of transport. SCC have produced new guidance for Travel Plans, for use as a material planning consideration. Furthermore, the National Planning Policy Framework, paragraph 34 states that:- 'Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure).'
- 16.11 With regards to home to school transport contributions, these are already being secured through the planning process, where relevant to the development. This is done in accordance with the Department for Education (DfE) publication 'Securing developer contributions for education' (April 2019), which should be read in conjunction with the Planning Practice Guidance (PPG) advice on planning obligations (revised March 2019). It is therefore appropriate for the policy to require development contributions to provide for home to school transport where necessary.
- 16.12 The health benefits of 'Active Transport' are widely understood and supported, as such Sport England have published 'Active Design' which seeks to promote sport and physical activity in new and existing developments, to create an active environment, through designing and adapting where we live to encourage activity in everyday lives. The Councils have also published a Local Cycling and Walking Infrastructure Plan (LCWIP), which identifies opportunities for cycling and walking improvements at a local level.
- 16.13 Development should have regard to the most recent County Council Rights of Way Improvement Plan.



## Policy LP30 - Managing Infrastructure Provision

- 1. Planning proposals will need to have regard to the Councils' Infrastructure Delivery Plan (a living document that will be reviewed and updated during the plan period) and any responses to the proposals from infrastructure providers. All new development must be supported by, and have good access to, all necessary infrastructure<sup>43</sup>. Planning permission will only be granted if it can be demonstrated that there is, or will be, sufficient infrastructure capacity to support and meet the necessary infrastructure requirements arising from the proposed development.**
- 2. Development proposals must consider all of the infrastructure implications of a scheme, including existing commitments to infrastructure provision at the time of application submission and determination, and cumulative impacts if the proposal forms one of a number of growth projects in a locality and/or infrastructure catchment area.**
- 3. Applicants must demonstrate that adequate consideration has been given to the timing and level of infrastructure provision to the satisfaction of the relevant LPA and infrastructure providers. As such, development may need to be phased either spatially or sequentially to ensure the provision of infrastructure in a timely manner. Restrictions on planning permissions and/or planning obligations may be used to secure a satisfactory phasing arrangement.**

<sup>43</sup> Necessary infrastructure includes critical and/or essential infrastructure as identified in the Infrastructure Delivery Plan

Policy LP30 – Managing Infrastructure Provision Supporting Text:

## LP30 - Managing Infrastructure Provision

### Policy background and explanation

- 16.14 Infrastructure is defined in each Council's Infrastructure Funding Statement and the supporting Infrastructure Delivery Plan (IDP). The provision of infrastructure is fundamental to maintaining quality of life, economic prosperity and the environmental assets of the Districts. The aim of this policy is to secure an appropriate level of infrastructure, including through developer contributions and planning obligations. Applicants will be expected to demonstrate that existing, planned and / or committed infrastructure is sufficient to accommodate development.
- 16.15 There are a wide range of infrastructure types including transport, telecommunications, security, green infrastructure, waste management, water supply, waste water, flood and coastal change management, minerals, energy supply as well as community facilities (such as health, education, police, emergency services and cultural infrastructure). The Councils have worked closely with infrastructure providers to ascertain infrastructure requirements related to growth and will continue to work with service providers, statutory bodies and neighbouring authorities to ensure the timely and coordinated delivery of infrastructure. The Infrastructure Delivery Plan (IDP) provides an up to date position on known infrastructure capacity and requirements.
- 16.16 In the event that essential infrastructure cannot be appropriately delivered to support new development, this policy will be used to restrict development from being commenced or, in certain cases, from being permitted, in the absence of proven infrastructure capacity. In cases where the cumulative impact of schemes on strategic infrastructure could prevent schemes being developed, a coordinated approach will be used to pool resources to address requirements and where this cannot be achieved the policy of restriction shall apply.



## SP08 – Strategic Infrastructure Provision

- 1) **The Councils will work with the relevant partners in supporting and enabling the delivery of key strategic infrastructure projects<sup>15</sup> affecting both the plan area and beyond, which include:**
  - a. **Infrastructure for transport (including sustainable transport modes) along the strategic transport corridors (including the delivery of the ISPA Transport Mitigation Strategy) to avoid and mitigate any adverse effects, and achieve net environmental gains;**
  - b. **A district wide education expansion programme to match projected population growth;**
  - c. **Protected Habitats Mitigation Zones;**
  - d. **The provision of essential water supply and water recycling infrastructure, including an upgrade from 2032 to the Hartismere water supply infrastructure network; and**
  - e. **Improvements and expansions to electronic communication networks and high-quality digital infrastructure.**
- 2) **All development will also need to make provision for appropriate contributions towards community infrastructure.**
- 3) **The required infrastructure will be provided through a combination of Community Infrastructure Levy (CIL), Planning Obligations, other Developer Contributions and where appropriate, funding assistance from the Councils / other provider organisations.**

<sup>15</sup> Detailed information on strategic infrastructure projects are set out in the most recently published Babergh and Mid Suffolk Infrastructure Delivery Plan.

Policy SP08 – Strategic Infrastructure Provision Supporting Text:

## 11 – STRATEGIC INFRASTRUCTURE

### Policy background and explanation

11.01 The provision of infrastructure is fundamental to maintaining the quality of life, prosperity and environmental credentials of the area. It is essential that any future growth and development is supported by infrastructure to meet the needs of the population, businesses and the wider community. There are a wide range of infrastructure types necessary at both a local and strategic level. It is critical that the strategic and cumulative infrastructure needs are considered and addressed. This approach will then inform how individual developments can contribute and support the delivery of such strategic infrastructure, as well as understanding the more localised and scheme specific infrastructure capacity issues and needs.

- 11.02 The key strategic infrastructure projects include transport improvements, an education expansion programme, environmental protection of internationally important environmental designations, improvements to digital infrastructure and the water supply and treatment network. A comprehensive list of all strategic and local infrastructure is set out in the Babergh and Mid Suffolk Infrastructure Delivery Plan. In the Hartismere Water Resource Zone (WRZ) in Mid Suffolk District, water supply infrastructure network upgrades will be required. The network upgrades will not be available before 2032 at the earliest.
- 11.03 There are strong aspirations towards the delivery of key infrastructure projects, some of which will cross over administrative local authority boundaries, including into Ipswich. As such, development in the Ipswich Strategic Planning Area (ISPA) is predicted to add significant strain on the transport network. Therefore, a Transport Mitigation Strategy, which provides a package of transport measures, has been identified to reduce vehicle movements arising from new development and existing communities, and address air quality impacts in and around Ipswich.
- 11.04 To support the delivery of growth across Babergh and Mid Suffolk Districts, the Councils will continue to work with service providers, statutory bodies and neighbouring authorities to ensure support for the timely delivery of the required infrastructure throughout the Plan period.
- 11.05 Monitoring of infrastructure delivery and re-assessment of infrastructure requirements will be undertaken regularly.

### Community Infrastructure

- 11.06 Community infrastructure is vital to ensuring that settlements of all scales can thrive and function in more sustainable ways. The role of community infrastructure such as healthcare, early years and primary education, and cultural infrastructure, is typically of a more localised nature, but the cumulative impact of deficits can be severe on a wide area.
- 11.07 Many communities within the Babergh and Mid Suffolk area need improvements to community infrastructure, to support growth. The Infrastructure Delivery Plan (IDP) has identified which improvements to community infrastructure are required throughout the Plan period. Development must have regard to this, to ensure that appropriate and sustainable development can be supported.



## **SP09 –Enhancement and Management of the Environment**

- 1) The Councils will require development to support and contribute to the conservation, enhancement and management of the natural and local environment and networks of green infrastructure, including: landscape, biodiversity, geodiversity and the historic environment and historic landscapes.**
- 2) Development within the identified Protected Habitats Sites Mitigation Zone should seek to avoid harm in the first instance. Where this is not possible, development will be required to demonstrate adverse effects on site integrity will be avoided from increased recreational pressure. Development consisting of over 50 dwellings will be required to demonstrate well-designed open space/green infrastructure, proportionate to its scale. Development will also be required to make appropriate contributions through legal agreements towards management projects and/or monitoring of visitor pressure and urban effects on Habitats Sites and be compliant with the HRA Recreational Disturbance and Avoidance Mitigation Strategy. Development will otherwise need to submit separate evidence of compliance with the HRA regarding predicted impacts upon relevant designated sites.**
- 3) All development that would have an impact on a Protected Habitats Site, will be required to embed mitigation measures to avoid adverse effect on integrity.**
- 4) Through biodiversity net gain, all development will be required to protect and enhance biodiversity ensuring the measures are resilient to climate change.**
- 5) Where the monitoring of air quality from traffic on roads within 200 metres of Protected Habitats Sites demonstrates an adverse effect on their integrity, then the Councils will address any mitigation measures required in the Part 2 Plan.**



Policy SP09 – Enhancement and Management of the Environment Supporting Text:

## 12 - Protection and Management of the Environment

### Strategic Issues

- 12.01 The aims of the Plan are to ensure sustainable development can be achieved, whilst supporting the objective to contribute to conserving and enhancing our natural, built and historic environment. This includes making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including a low carbon economy NPPF (2021 Para 8).
- 12.02 To conserve and manage the environment, the Councils will employ a hierarchical approach of avoidance, mitigation and compensation.

### NATURAL AND LOCAL ENVIRONMENT

- 12.03 The NPPF (2021 Para.174) advocates that local plans should contribute to and enhance the natural and local environment. A framework of policies supports this strategic approach:
- a. Environmental Protection and Conservation
  - b. Biodiversity
  - c. Landscape
  - d. Historic Environment
  - e. Change of use of Land

#### ENVIRONMENTAL PROTECTION AND CONSERVATION

- 12.04 Babergh and Mid Suffolk have a rich and varied natural environment, including rivers, estuaries, open spaces and countryside, but some local resources are under pressure.
- 12.05 The environmental protection and conservation measures provide a managed policy framework which is adaptable and can respond to pressures through approaches such as prevention, management, mitigation or adaptation from flood risk, water resources, land resources, pollution and climate change.

#### GREEN INFRASTRUCTURE

- 12.06 All components of the green infrastructure network must be managed at a strategic level to ensure cross boundary and cumulative issues and impacts are effectively managed at a strategic level. This includes natural components, such as biodiversity, geodiversity and landscape, as well as assets within settlements, including historic assets, green spaces and recreational areas.

#### BIODIVERSITY & GEODIVERSITY

- 12.07 Local sites of biodiversity and geodiversity value are identified in the Plan to ensure consideration can be given to the level of protection provided to these local sites – including County Wildlife Sites, County Geodiversity Sites, Local Nature Reserves and Priority species and habitats.

## LANDSCAPE

- 12.08 In Babergh and Mid Suffolk, future development must be managed to respect the key features and local distinctiveness.
- 12.09 Along with Areas of Outstanding Natural Beauty (AONBs), Sites of Scientific Interest (SSSIs) and Conservation Areas, there are also less well-known features that make all landscape character areas significant and worthy of protection. It is important to recognise these elements, in order to balance interests and consider potential impacts in the future, as well as to identify any further management or guidance which may be required that goes beyond the boundaries of defined designations covered by legislation. Furthermore, in cases where mitigation measures are necessary, it may help inform the type of measures which could be appropriate.
- 12.10 There are approximately 16 identified Landscape Characters within Babergh and Mid Suffolk. Babergh makes a valuable and varied contribution to this, with the Suffolk Coasts and Heaths AONB and Dedham Vale AONB, including the Stour Valley, covering a considerable part of the District. Legislation provides protection and guidance within these areas and both have Management Plans providing a robust framework for management of challenges facing these areas in the future.

## THE HISTORIC ENVIRONMENT

- 12.11 The importance of heritage assets to the historic character and distinctive appearance of both Districts should not be underestimated. The historic environment is a precious resource valued by residents, visitors and local businesses, and the attractive historic character of many of the villages and wealth of traditional buildings is the focus of a healthy and growing tourism sector.
- 12.12 The Plan seeks to continue to conserve and enhance the heritage assets throughout the Districts, for the benefit of all to enjoy as well as to enrich the quality of life through learning from local historic knowledge and thereby ensure assets are safeguarded for future generations.

## CROSS BOUNDARY MITIGATION FOR PROTECTED HABITATS SITES

- 12.13 Protection for internationally and nationally protected sites is established in legislation. In producing the Plan, consideration has been given to the level of protection to afford to local sites of biodiversity and geodiversity value including County Wildlife Sites, County Geodiversity Sites and priority habitats and species.
- 12.14 Through previous Habitats Regulations Assessments, there has been recognition of the sensitivity of the internationally Protected Habitats Sites and the potential for significant effects arising from increased recreational disturbance related to new housing development. The sites are protected under the provisions of Wildlife and Countryside Act 1981 and Natural Environment and Rural Communities Act 2006. National policy identifies that development should initially consider whether avoidance of these sensitive areas is practical. In circumstances where this is not possible, appropriate mitigation should be provided, including being able to demonstrate well-designed open space/green infrastructure, proportionate to its scale, and prevents a significant adverse effect on site integrity to a Habitats Site. Such provisions can help



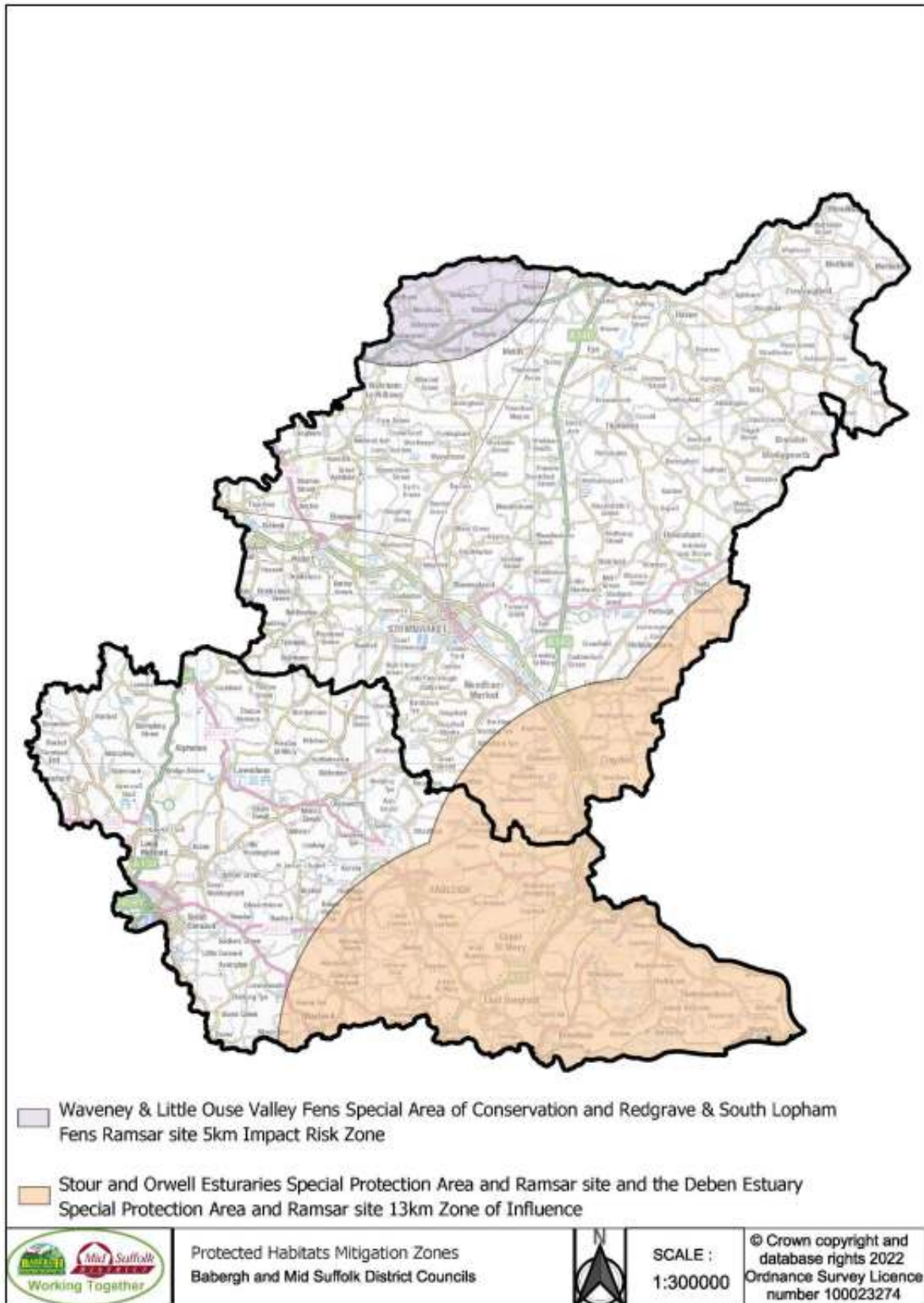
minimise any predicted increase in recreational pressure to the Habitats Sites by containing the recreation within and around the development site boundary away from Habitats Sites, in accordance with Natural England best practice advice<sup>16</sup>. Suitable Accessible Natural Green Space (SANGS) guidance<sup>17</sup> can be helpful in achieving this, including provision of high-quality, informal, semi-natural areas; circular dog walking routes of at least 2.7 km within the site and/or with links to the surrounding public rights of way; dedicated 'dogs-off-lead' areas; signage/information leaflets to householders to promote these areas for recreation; dog waste bins; and a commitment to the long-term maintenance and management of these provisions.

12.15 Babergh, Ipswich, Mid Suffolk, Suffolk Coastal and Waveney Councils (now East Suffolk Council) are taking a joined-up approach to mitigating these impacts. For Babergh and Mid Suffolk, these relate to the Stour and Orwell, and Deben estuaries. The Councils have produced a Suffolk Coast Recreational Disturbance Avoidance and Mitigation Strategy (RAMS), which identifies and costs the measures necessary to mitigate recreational and leisure impacts and confirms how they will be funded from residential development. The intention of the strategy is to avoid adverse effects on the integrity of the Habitats Sites, in combination with other plans and projects, over the Plan period.

12.16 Strategic projects may require joint working by public bodies, to ensure the requirements of the Habitats Regulations are met.

<sup>16</sup> Letters from Natural England dated 25th May 2016, 22nd June 2017 and subsequent Annex I referenced in the Babergh and Mid Suffolk Joint Local Plan Habitats Regulations Assessment (Oct 2020).

<sup>17</sup> Natural England SANGS guidance (Aug 2021).





- 12.17 Proposals for development will need to consider internationally designated sites, particularly where they are identified within the relevant Impact Risk Zones and/or Zones of Influence (otherwise referred to under the general term 'Protected Habitats Mitigation Zones').
- 12.18 Development that falls within the Impact Risk Zones for Redgrave & Lopham Fens Ramsar site and Waveney & Lt Ouse Valley Fens SAC will trigger consultation with Natural England. The 5km Impact Risk Zone for these designations are identified on the Protected Habitats Mitigation Zones map and is also identified on the Natural England MAGIC online map.
- 12.19 The Councils will continue to work with other authorities throughout the Plan period, to ensure that the Protected Habitats Mitigation Zones, strategies and mitigation measures are kept under review in partnership with Natural England and other stakeholders. The RAMS 13km Zones of Influence (ZOI) as identified on the Protected Habitats Mitigation Zones map were established in response to evidence to provide an indication of the geographical extent to which recreation pressure may be relevant for each European site, i.e. the geographical zone around each European site, within which new development defined through the RAMS Strategy may pose a risk in terms of additional recreation pressure. For all other development within the Stour and Orwell Estuaries Protected Habitats Mitigation Zone, a 13km Impact Risk Zone will apply, which will trigger consultation with Natural England for further ecological considerations, on a site-by-site basis.
- 12.20 The Councils are also currently working in a county-wide partnership on a cross-boundary project, to identify wildlife corridor networks. This will be used as baseline data for creating, conserving and enhancing wildlife corridors and to support biodiversity net gain requirements.
- 12.21 Monitoring of biodiversity net gain will be undertaken annually on a District level, in line with government requirements.
- 12.22 All development within or directly adjacent to Protected Habitats Sites, will be required to ensure the construction will avoid adverse effects on site integrity of the relevant Protected Habitats Site, in accordance with legislation. This will be required at the application stage.
- 12.23 The Councils commenced the monitoring of air quality from traffic on roads within 200 metres of Protected Habitats Sites in September 2021. An Air Quality Monitoring Plan has been agreed with Natural England for the collection of Nitrogen Dioxide (NO<sub>2</sub>) and Ammonia (NH<sub>3</sub>) emissions over the period 2021 to 2022. The Part 2 Plan will provide an appropriate stage and timescale to determine whether the planning policies are having (or could have) an adverse effect on the integrity (AEOI) of the relevant Protected Habitats Sites.



## **White Elm Solar Farm EIA Scoping**

### **Comments of Suffolk County Council**

Appendix G: Principles for working with Public  
Rights of Way

- 1.1 The Council expects the following principles to be adhered to for this development at all sites; Solar Farms, landfall, converter sites, extension to the National Grid substation and the terrestrial corridor:
- Early engagement with the County Council PRow & Access Team to discuss the impact on and management of the PRow & access network. Suffolk County Council is the Highway Authority for public rights of way and the Access Authority for Open Access land and the National Trail.
  - The Applicant must obtain the Definitive Map and Statement from the PRow & Access Team at Suffolk County Council. This is the only source of the up-to-date record of the PRow (supplied digitally).
  - Public rights of way should be marked on plans using the SCC digital data and labelled as per the Definitive Map and Suffolk County Council convention (Area -parish number - path number)
  - Where PRow are directly impacted, a pre and post condition survey must be carried out including identification and assessment of surface condition and with a scope of coverage and methodology to be agreed with Suffolk County Council (SCC) as Highway Authority. This should include pre-construction work where PRow might be used to gain access to the corridor and reinforcement works might be required prior to use by vehicles.
  - Where impacted by the works, any PRow will be restored to at least their original condition or to a condition agreed with SCC - where there are existing defects, the applicant should agree restoration measures with the County Council.
  - Where PRow cross the cable corridor, haul road, access tracks and other sites, the surface must be always kept in a safe and fit condition for all users to the satisfaction of the County Council. Banksman should be employed where there is a potential conflict between construction vehicles and PRow users.
  - Pre-construction works must not obstruct or disturb any public rights of way (e.g., new fencing, archaeology surveys etc) unless otherwise agreed with the County Council. Management measures or temporary closures not covered in the DCO must be by application to the County Council.
  - Public rights of way that are used for any stage of construction access should remain open, safe, and fit for the public to always use with management measures put in place with the agreement of the County Council.
  - Any temporary closure of a PRow must be agreed with the County Council and the duration kept to the minimum necessary. Diversions must not be unreasonably long or circuitous. 'Dog-legs' should be



avoided.

- An alternative route must be provided for any public right of way that is to be temporarily closed prior to closure to a standard agreed with the County Council.
- The location of alternative routes to be agreed with the Council.
- Any alternative route must be safe and fit for the public to always use – suitable surface, gradient and distance with no additional road walking between the natural destination points.
- Any temporary closure and alternative route will be advertised in advance on site and in the local media, and to the local parish councils including a map showing the extent of the closure and alternative route – process and cost to be agreed between applicant and SCC.
- There will be no new gates or stiles erected on any public rights of way that are impacted by the cable corridor and any other associated site.
- All structures (including container-style structures) should be sited as far from the PRow as possible and screened. Any inverters that may be required are requested to be sited as far from bridleways and byways as possible.
- Drainage provision must be taken into account to prevent potentially serious effects on the PRow.

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

[whiteelmsf@planninginspectorate.gov.uk](mailto:whiteelmsf@planninginspectorate.gov.uk)

Fire Business Support Team  
Floor 3, Block 2  
Endeavour House  
8 Russell Road  
Ipswich, Suffolk  
IP1 2BX

Your Ref: DC/24/3892/CON  
Our Ref: Water Department  
Enquiries to: Andrew Patching  
Direct Line: XXXXXXXXXX  
E-mail: [Fire.BusinessSupport@suffolk.gov.uk](mailto:Fire.BusinessSupport@suffolk.gov.uk)  
Web Address: <http://www.suffolk.gov.uk>

Date: 06/11/2024

Dear Sirs

**White Elm Solar Farm, Mendlesham**  
**Planning Reference: DC/24/3892/CON**

Whilst Suffolk Fire and Rescue Service (SFRS) are not a statutory consultee in relation to this project we will work and engage with the developer as this project develops to ensure it complies with the statutory responsibilities that we enforce.

The developer should produce a risk reduction strategy as the Responsible Person for the scheme as stated in the Regulatory Reform (Fire Safety) Order 2005 (as amended). We would also expect that safety measures and risk mitigation is developed in collaboration with the SFRS, to ensure emergency responders are not placed at risk and appropriate access and facilities are provided. 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. SFRS will want to view the transport strategy to minimise this impact and prevent an increase in the number of road traffic incidents. Any development should not negatively impact on the Service's ability to respond to an incident in the local area.

**The developer must ensure the risk of fire and other emergencies is minimised, this may be by way of any or all of the following measures:**

- Procuring components and using construction techniques which comply with all relevant legislation, supported with appropriate test evidence and certification.
- Designing the development to contain and restrict the spread of fire through the use of fire-resistant materials, and adequate separation between elements.
- The design should be undertaken in accordance with the IET PV Code of Practice and MCS requirements, or equivalent technical requirements, provided UK regulations are still met.

/continued

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- Appropriate automatic fire detection should be installed in all areas inside buildings in which electrical control equipment (inverters, isolators, and distribution boards) is located. This should be monitored to give the earliest possible warning of fire.
- Consideration should be given to the fire safety management implications of a PV system that will operate at a fully or partially unattended location.
- The installation of appropriate automatic fire suppression systems is highly beneficial for the mitigation of risk in the event of fire and for protection of property and should be considered for areas inside buildings where equipment associated with PV systems is installed.
- Appropriate water supplies for fire-fighting purposes
- Developing an emergency response plan with SFRS to minimise the impact of an incident during construction, operation and decommissioning of the facility.

The emergency response plan should include:

- Details of the hazards associated with PV panels and associated equipment.
- Isolation of electrical sources to enable firefighting activities.
- Minimise the environmental impact of an incident.
- Containment of fire water run-off.

The emergency response plan should be maintained and regularly reviewed by the occupier and any material changes notified to SFRS.

Environmental impact should include the prevention of ground contamination, water course pollution, and the release of toxic gases.

If the comments above are not considered or inappropriate access and facilities for the FRS provided, SFRS will ensure our SSRI record is amended accordingly, and operational crews will adopt an informed risk based defensive approach on arrival. Depending on the nature of the incident and the information ascertained, defensive tactics may be deployed for some time, to maximise our response while maintaining crew safety.

It is acknowledged the information provided includes the presence of battery energy storage systems (BESS) as part of the proposed development. As well as all of the above please take note of the following additional comments.

### **The BESS facilities should be designed considering the following principles**

Effective identification and management of hazards and risks specific to the siting, infrastructure, layout, and operations at the facility.

- Siting of renewable energy infrastructure so as to eliminate or reduce hazards to emergency responders.
- Safe access for emergency responders in and around the facility, including to renewable energy and firefighting infrastructure.
- Provision of adequate water supply and firefighting infrastructure to allow safe and effective emergency response. This could include the provision of water to allow for defensive firefighting to protect surrounding infrastructure.
- Vegetation sited and managed so as to avoid increased bushfire and grassfire risk.

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- Prevention of fire ignition on-site.
- Prevention of fire spread between site infrastructure (solar panel banks, wind turbines, battery containers/enclosures).
- Prevention of external fire impacting and igniting site infrastructure.
- Provision of accurate and current information for emergency responders during emergencies.
- Effective emergency planning and management, specific to the site, infrastructure and operations.

Suffolk Fire and Rescue Service will seek to obtain as much information as possible at the earliest opportunity from the applicant/developer/designer/manufacturer etc., to allow an initial appraisal of the BESS to be made. It is the responsibility of those above to provide this information, with appropriate evidence provided to support any claims made on performance and with appropriate standards cited for installation. Areas for discussion that we may wish to clarify include those listed in the following table:

| Areas for discussion             | Clarification questions   |
|----------------------------------|---|
| Thermal Event/Deflagration       | <ul style="list-style-type: none"> <li>• How will the proposed BESS perform in the event of a thermal event/deflagration and what proactive/reactive systems are proposed to mitigate this?</li> <li>• How will the thermal event be contained to the BESS of origin without the radiant heat to others?</li> <li>• How has the performance of the BESS in a thermal runaway event influenced site design?</li> </ul>   |
| Site Plans                       | <ul style="list-style-type: none"> <li>• What are the assumptions about active firefighting, within the emergency response plan and what measures are in place to reduce the scale of an incident?</li> <li>• Are the incident assumptions realistic?</li> <li>• What is the role of the FRS at an incident?</li> <li>• Are they realistic?</li> <li>• What is the expectation of the FRS in terms of the fire strategy at a thermal event?</li> <li>• What is the provision for firefighting access to, around and within the site?</li> </ul> |
| Water Supply/Suppression Systems | <ul style="list-style-type: none"> <li>• What is the type, purpose and effect of any fire suppression system installed?</li> <li>• What is the purpose of the water supply provision on site? Boundary cooling/defensive firefighting or active suppression?</li> </ul>   |

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|                         |   |
|-------------------------|---|
| BESS Design             | <ul style="list-style-type: none"><li>• What is the size, quantity and capacity of each BESS unit?</li><li>• Is the BESS design appropriate for the weather at the proposed location i.e. prevention of water ingress and impact of temperature range on cooling systems?</li><li>• Does the applicant/developer have relevant competence and experience in the field of BESS design and deployment on the scale of the proposed development?</li><li>• What are the arrangements for ongoing monitoring of the BESS and what is the response time for onsite technical assistance in the event of an incident?</li></ul> |
| Annunciation            | <ul style="list-style-type: none"><li>• What remote annunciation panels are available for monitoring an event from the site?</li><li>• What data is available from these remote annunciation panels?</li></ul>  |
| Environmental Receptors | <ul style="list-style-type: none"><li>• Please refer to Section 15 of this guidance.</li></ul>  |

Yours faithfully



Andy Kettlewell  
Fire Safety Inspector

Copy:  [@eastsoffolk.gov.uk](mailto: [redacted]@eastsoffolk.gov.uk)



UK Health  
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Agency

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Seaton House, City Link  
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[www.gov.uk/ukhsa](http://www.gov.uk/ukhsa)

Your Ref: EN0110003  
Our Ref: CIRIS91207

Mr Todd Brumwell  
EIA Advisor  
The Planning Inspectorate  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

25<sup>th</sup> November 2024

Dear Mr Brumwell,

**Nationally Significant Infrastructure Project: White Elm Solar Farm  
Scoping Consultation Stage**

Thank you for including the UK Health Security Agency (UKHSA) in the scoping consultation phase of the above application. ***Please note that we request views from the Office for Health Improvement and Disparities (OHID) and the response provided below is sent on behalf of both UKHSA and OHID.*** The response is impartial and independent.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups, and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Having considered the submitted scoping report we wish to make the following specific comments and recommendations:

**Environmental Public Health**

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be covered elsewhere in the Environmental Statement (ES). UKHSA and OHID's predecessor organisation Public Health England produced an advice document *Advice on the content of*

*Environmental Statements accompanying an application under the NSIP Regime*<sup>1</sup>, setting out aspects to be addressed within the Environmental Statement<sup>1</sup>. This advice document and its recommendations are still valid and should be considered when preparing an ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.

Our position is that pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen are non-threshold; i.e, an exposed population is likely to be subject to potential harm at any level and that reducing public exposure to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure) and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

### **Major Accidents & Disasters**

We understand that the promoter proposes not to include a dedicated chapter for accidents and disasters. The proposed development includes siting of a Battery Energy Storage System (BESS) and various electrical infrastructure. While the likelihood of an incident involving the BESS can be greatly reduced in the design stage of the project, the impact of such incidents can be severe. As part of the ES, the applicant should assess risk to nearby public health and environmental receptors from:

- Failure of the BESS causing fire and release of smoke and associated toxic gases.
- Release to the environment of potentially contaminated water used by the fire service in response to a BESS fire.
- Fires (including wildfires) involving solar panels and associated electrical infrastructure.

Further detail should include the likely emissions to air from such incidents.

### **Hydrology and Hydrogeology**

We note that the site is in a drinking water safeguard zone for surface water. As part of the assessment, the promoter should identify surface water abstractions in the catchment of the site footprint and assess the risk to these receptors from the proposed development.

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1

<https://khub.net/documents/135939561/390856715/Advice+on+the+content+of+environmental+statements+accompanying+an+application+under+the+Nationally+Significant+Infrastructure+Planning+Regime.pdf/a86b5521-46cc-98e4-4cad-f81a6c58f2e2?t=1615998516658>



The applicant has identified the site to be in a Source Protection Zone 3. It is unclear if the applicant has considered private water supplies in addition to public/ commercial water supplies and UKHSA recommends these are included in the assessment.

### **Electromagnetic Frequencies**

It is noted that the current proposal mentions Electric and Magnetic Fields (EMF), but the assessment under 15.17 is not considered sufficient, as the proposal includes 400/33kV substation and associated cabling.

Table 7.6 (Ecological Aspects to be Scoped Out) also states “However the 400/33kV substation located in the Site, includes high voltage assets with voltage up to 400kV (such as transformers, busbar etc) and as such an overall EMF risk assessment might be advisable.”

However, EMF assessment is scoped out of the EIA.

### **Recommendation**

We request that the ES clarifies this and if necessary, the proposer should confirm either that the proposed development does not impact any receptors from potential sources of EMF; or ensure that an adequate assessment of the possible impacts is undertaken and included in the ES.

Further advice on carrying out the EMF assessment is available in the document linked above.

Yours sincerely,

On behalf of UK Health Security Agency

*Please mark any correspondence for the attention of National Infrastructure Planning Administration.*

## Patten, Jack

---

**From:** Planning Department <planning@wlma.org.uk>  
**Sent:** 27 November 2024 13:48  
**To:** White Elm Solar Farm  
**Subject:** EIA Scoping consultation response

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

Dear Todd Brumwell,

**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11  
Application by ELMYA RPC UK Grange Road Limited (the Applicant) for an Order granting Development Consent for the White Elm 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**

Thank you for consulting the Water Management Alliance on this EIA Scoping case.

Using the information provided in the Scoping report, we understand that the proposed White Elm Solar Farm development does not fall within the internal drainage district of any of the member Internal Drainage Boards of the Water Management Alliance. (The closest Internal Drainage Boards to the proposed development are East Suffolk Water Management Board and Waveney, Lower Yare & Lothingland Drainage Board.)

We therefore have no comment to make on this consultation.

Yours sincerely,

Judith




**Judith Stoutt BSc (Hons), MSc**  
National Infrastructure Officer  
Water Management Alliance  
dd: [REDACTED] e: [REDACTED]@wlma.org.uk

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What3Words: [caring.employ.visit](#)

WMA members: [Broads Drainage Board](#), [East Suffolk Water Management Board](#), [King's Lynn Drainage Board](#), [Norfolk Rivers Drainage Board](#), [Pevensey and Cuckmere Water Level Management Board](#), [South Holland Drainage Board](#), [Waveney, Lower Yare and Lothingland Drainage Board](#)

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Defenders of the Lowland Environment

## **Patten, Jack**

---

**From:** Lynne Cockerton [REDACTED]@btopenworld.com>  
**Sent:** 25 November 2024 14:46  
**To:** White Elm Solar Farm  
**Subject:** White Elm Solar Farm, Suffolk - Your Ref: EN0110003  
**Categories:** EST

Dear Planning Inspectorate

Wetheringsett cum Brockford Parish Council has considered the information supplied with regard to this proposed application. It requests that the Planning Inspector considers the following comments raised by our Parish Councillors:

Loss of agricultural land - our councillors understand the land in question is good grade agricultural growing land (grade 2/3) which would be lost to food production

The proposal encroaches on to heritage land and a medieval Deer Park

The proposal will be an eyesore in a heritage area

Transport and Access - the proposal overlaps with other developments in the area, ie the proposed Norwich to Tilbury Pylons and new property development in Mendlesham. What will be the impact of these heavy transport vehicles, plus the proposed solar farm vehicles, on local residents?

Proposed upgraded access and access via multiple sites (9 proposed access points) - what will be the impact of these multiple access points, used by heavy transport vehicles, on local residents?

Request clarification of grid references?

There are no current regulations for the disposal of solar panels and batteries. What is the plan for disposal of these items?

Our Parish Councillors request the above issues raised are addressed.

Kind regards  
Lynne Cockerton  
Clerk to Council