SUNNICA ENERGY FARM

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8.44 Applicant's Response to the Joint Local Impact Report

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The Infrastructure Planning (Examination Procedure) Rules 2010

Sunnica Energy Farm

Development Consent Order 202[x]

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1 Introduction

1.1.1 This report responds to the Joint Local Impact Report by East Cambridgeshire District Council, Cambridgeshire County Council, Suffolk County Council and West Suffolk Council, issued to the Examining Authority on 20 October 2022 (REP1-024). It responds to the key issues raised by the councils.

1.1.2 Section 2-15 of this report is tabularised to follow the structure of the Local Impact Report (LIR) and includes the issues raised and the applicant's response against each:

- Chapters 1-6 LIR Summary
- Chapter 7 Cultural Heritage
- Chapter 8 Ecology and Biodiversity
- Chapter 9 Flood Risk
- Chapter 10 Landscape
- Chapter 11 Noise and Vibration
- Chapter 12 Socio-economics
- Chapter 13 Transport
- Chapter 14 Private Rights of Way
- Chapter 16 Contaminated Land
- Chapter 17 Climate
- Chapter 18 Battery Fire Safety
- Chapter 19 Minerals and Waste
- Chapter 20 Cumulative Effects
- Applicant's Response to Annex D
- Applicant's Response to Annex E (Placeholder)
- Applicant's Response to Annex F (Placeholder)

1.1.3 The Applicant has not produced a response to Chapter 15 (Air Quality) as it wasn't considered a response was necessary given the contents on the Local Impact Report on this topic.

2 Chapter 1-6 LIR Summary

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
3.9 – 3.15	West Suffolk and East Cambridgeshire contain a number of economic assets and strengths. Weaknesses in the local economy include: the ongoing challenge to nurture a thriving local economy to attain net inward commuting; and in West Suffolk existing infrastructure being inadequate to promote high levels of growth due to the inability to allocate specific land for development.	The Applicant acknowledges the comments made. The Applicant's proposals will create opportunities for the local economy and employment during construction.
5.6 – 5.11	Emerging West Suffolk Local Plan	5.7: The Applicant agrees that the emerging West Suffolk Local Plan should have little weight in the examination and in the SoS's decision. The Applicant notes inconsistency between this paragraph of the Councils' Local Impact Report [**REP1-024**] (LIR) and the Local Development Scheme provided in Appendix 33 of the LIR, with the former stating that submission of the emerging West Suffolk Local Plan to the Secretary of State will take place in mid-2024 and the latter setting out that this is programmed for September/October 2023, with adoption programmed for July 2024. In either case, the Applicant notes that publication of the Regulation 19 draft of the West Suffolk Local Plan for consultation is not programmed to take place until May 2023 at the earliest. This is after the conclusion of the Sunnica DCO Examination. The programmed adoption of the Emerging West Suffolk Local Plan in July 2024 is after the determination of the Sunnica DCO application is due by the SoS. 5.8: The Applicant has accessed a copy of Part 2 of the emerging Local Plan on the WSC website and subsequently as Appendix 04 to the LIR, which was published on the Sunnica DCO Examination website on 11/11/22. 5.9: Policy NSP07, Renewable and low carbon energy, sets out parameters that the LPA would use for determining planning applications under the Town and Country Planning Act 1990 (TCPA), following adoption of the emerging West Suffolk Local Plan. The pre-amble in paragraph 3.11 of the emerging West Suffolk Local Plan sets out that the purpose of the policy is to encourage and

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		guide proposals for renewable and low carbon energy-generating and storage assets, including solar farms and battery storage. Such renewable and low carbon energy schemes (including solar farms) would be of less than 50MW generation capacity and of no more than local or regional (i.e. not national) significance. It is noted that the parameters set out by the draft policy are tailored to the purpose of the plan, which is to guide the determination of planning applications for renewable energy developments that would have comparatively small generation capacities and comparatively minor benefits for energy security, affordability and decarbonisation, when compared to the Scheme. The parameters are therefore not directly applicable to the Scheme and need to be considered in the context of the decision-making criteria and considerations set out by NPS EN-1, NPS EN-3 and draft NPS EN-1 and draft NPS EN-3, which provide the primary policy framework for NSIP scale energy schemes. Notwithstanding the above, the Scheme is considered by the Applicant to be compliant with the parameters set out by emerging West Suffolk Local Plan policy NSP07, as explained below in relation to criterions a to i of the draft policy parameters. a. The Applicant considers the Scheme to be in compliance with this criterion as: i. The design of the Scheme takes account of landform and features of the landscape in order to minimise landscape impact. ii. Embedded mitigation is incorporated into the Scheme to minimise and mitigate landscape impact. As a result of this mitigation the LVIA reported by the ES [**APP-042**] concludes that, following the establishment of mitigation planting, a significant visual effect would only result in one location. iii. Cumulative effects have been assessed by the ES. Noting the nationally significant contribution the Scheme would make to the delivery of a secure, affordable and zero carbon energy system, including meeting the Government's commitments to achieving a net zero electricity grid by 2035 and a net zero economy by 2050, the benefits of the Scheme outweigh its landscape and visual impacts. b. The Scheme avoids best and most versatile agricultural land as far as possible, with 94% of the Scheme being located on lower grade agricultural land or on non-agricultural land.

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		c. The Scheme would deliver a substantial biodiversity net gain and would not have any significant impact on protected species, designated biodiversity or geodiversity sites or water quality. d. This criterion is not in accordance with the decision-making principles for developments that would result in harm to heritage assets, as set out by NPS EN-1 paragraph 5.8.14 or NPPF paragraphs 201 and 202. The Scheme will not result in substantial harm on any heritage asset and is in accordance with the applicable NPS and NPPF policy tests. The Scheme's impacts on highways, highway safety, aviation, soil quality and residential amenity have also been considered and suitable mitigation included in the Scheme, where required. e. A framework decommissioning environmental management plan (DEMP) [**APP-125**] has been prepared to secure the decommissioning of the Scheme and return of applicable land in a condition suitable for agriculture. This is secured by Draft DCO [**APP-019**] Schedule 2 Requirement 22. f. A battery energy storage system is proposed to be co-located with solar PV generation, as per the principles of this criterion. g. This criterion is applicable to wind generation schemes only. h. The ES that forms part of the DCO application provides an assessment of glint and glare impact [**APP-121**] and ecology [**APP-040**]. i. A battery energy storage system is proposed to be co-located with solar PV generation, as per the principles of this criterion. 5.10: The Applicant agrees that there are no preferred option sites within or adjacent to the Sunnica Order Limits. The following sets out the Applicant's comments in relation to the emerging allocations referred to by the LIR. • 3.06a (existing policy reference SA10a) land north of Acorn Way, Red Lodge is identified by Figure 2-11 rev 1 of Planning Statement Part 3 [**REP1-015**]. The Applicant has considered this allocation and responded in its Relevant Representation Response [**REP1-016**] in response to WSC-40. The allocation and preferred option land is more than 500 m from the Order limits at its closest point. Noting the distance from the Scheme and location

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		on the opposite side of the A11, no land use planning conflict with the Scheme has been identified for this allocation or preferred option. • 306b, Land off Turnpike Road and Coopers Yard is identified as SA9(a) of the 019 former Forest Heath area Site Allocations Local Plan. This is identified by Figure 2-11 rev 1 of Planning Statement Part 3 [**REP1-015**] and referenced by Planning Statement Part 1 [**APP-261**] Table 2-3. • 5.07a is located on the western edge of Freckenham, approximately 1.25 km south of the nearest proposed solar farm infrastructure located in E05. No land use planning conflict with the Scheme has been identified for this preferred option. 5.11: The Applicant has noted allocation SA4, Land West of Mildenhall. This has been taken into account in the DCO application. It is included as cumulative scheme in the ES (see ES Appendix 5A, Cumulative Schemes [**APP-055**]) and identified as 164 on ES Figure 5-1 [**APP-178**].
5.19 – 5.23	Neighbourhood Plans	5.19: The Applicant has considered all Neighbourhood Plans within or partially within the Order limits that had been made prior to submission of the DCO application. 5.20: The Newmarket Neighbourhood Plan is considered by the Planning Statement Part 1 [APP-261]. 5.21: The Freckenham Neighbourhood Plan has not been adopted and it does not appear that any draft plan is available for the Applicant to consider. 5.22: Fordham Neighbourhood Plan is considered by the Planning Statement Part 1 [**APP-261**]. 5.23: The Isleham Neighbourhood Plan was made on 19 May 2022, which is 6 months after the Sunnica DCO application was submitted. The Applicant notes that the draft Sunnica Order limits are shown on Map 2 of the Isleham Neighbourhood Plan. It also notes that this is misleadingly labelled as "Sunnica Energy Farm Proposed Layout". No elements of the proposed layout of the Scheme are shown on Map 2 of the Neighbourhood Plan. This could lead to misunderstanding by readers of the local plan that the entire Order limits would be used for the development of solar farm infrastructure. The Applicant agrees with the statement at 1.2.8 of the Neighbourhood Plan, that as an NSIP the Scheme is outside the remit of the Neighbourhood Plan.

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		The Applicant notes that there is no land use planning conflict between the Scheme and any allocated land use (Map 3 of the Neighbourhood Plan), nor is there any conflict between the Scheme and any designated Local Green Space (Map 7 of the Neighbourhood Plan). Locally Important Views IV10 and IV11 that are identified by Map 8 of the Local Plan are as per representative viewpoints 4, 5 and 6 identified by Figure 10-12 Visual Receptor Plan [**REP1-14**] and assessed by Environmental Statement - Chapter 10 - Landscape and Visual Amenity [**APP-042**] (including Appendix 10H - Visual Effects [**APP-108**]. This concludes that significant visual effects (which are mostly moderate adverse) on these receptors would result during construction and at year 5 operation of the Scheme, these would reduce to minor adverse effects which are not significant following the establishment of mitigation planting by year 15 of operation. During decommissioning, these effects remain minor adverse and not significant. Viewpoint 4 is also representative of the view from The Ark Church building which opened in 2019 and is identified as a 'Locally Important Building' (ref ILIB 01) by the Neighbourhood Plan.

3 Chapter 7 Cultural Heritage

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Table 1: Summary of Impacts Item 1d Methodology	Consideration of non-designated heritage assets: Although an assessment of the proposals on NHDAs, including historic buildings, is mentioned in the Cultural Heritage chapter of the ES, sections 7.6 and 7.7 which deal with this assessment only refer to the impact on archaeology. No mention is made of any NDHAs outside the conservation areas. Clarification is required as to whether this is an omission, in which case details are required, or the fact that there are no NDHAs	Paragraph 7.3.4 of the Environmental Statement Chapter 7: Cultural Heritage [**APP-039**] states that both designated and non-designated assets have been considered, including historic buildings, in accordance with the NPPF. No assets were identified within the 1km study area for consideration. Non-designated assets which fell within conservation areas within the study area were considered as part of that area, rather than in isolation, as set out in paragraph 7.3.2 of the ES.
7.27-7.29 and 7.37-7.38	W01- Impact on Setting of Roman Villa to south (at Snailwell Fen) and buried deposits within scheme	The Applicant accepts that the development of W01 would result in impact to below ground deposits that may contain preserved palaeoenvironmental and archaeological evidence potentially impacting buried waterlogged deposits that may contain archaeological material. The Applicant has undertaken geophysical survey and where possible, trench evaluation, in W01 but was unable to investigate a portion of the southern area of W01 due to flooding during the fieldwork. While the geophysical survey does not suggest the presence of significant archaeological remains in the southern area of W01, it is accepted that this could be due to the nature of the deposits and not a lack of archaeology. The ES notes that an area of screening between the Roman Villa and the development does exist but does also state that there would be views from the villa to the north. The Applicant accepts that the rural setting of the Roman Villa would be impacted by development in W01. Waterlogged deposits containing archaeological material that may be associated with the Roman villa to the south and the settlement within W01 to the north would be impacted by piling. While neither the Roman Villa nor the concentration of archaeology suggesting Roman settlement in W01 have been investigated to confirm their temporal relationship, the Applicant accepts that

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		the results of the evaluation undertaken in W01 suggests a likely relationship of archaeological remains within the wider W01 area. The Applicant accepts that the development would isolate the concentration of geophysical anomalies indicative of settlement in the north of W01, divorcing the settlement from its wider wetland context and possible relationship with the Roman Villa to the south. The Applicant is giving due consideration to the impact of the development on the historic setting of the Roman villa and archaeological remains within W01. The Applicant is in the process of developing a mitigation strategy and will present this in due course.
7.35-7.36	Impact on Chippenham Park	The Applicant accepts that there will be an impact on the Grade II Registered Park and Garden (RPG) at Chippenham. This has been reported on in the Environmental Statement Chapter 7: Cultural Heritage [**APP-039**] as being a moderate adverse effect which is significant. The impact has been identified on the setting of the RPG through changes to its informal parkland. It is acknowledged that the character of this setting will change. However, we disagree that the proposals will profoundly change the setting of all the designated assets. While it is accepted that the development will be located within the setting of the designated assets, no physical changes to the assets themselves will occur. No historic features associated with the wider park will be removed and existing boundaries will be maintained; therefore, the rural character will be changed, but the appreciation of its layout and arrangement will be maintained despite the change in use. The rural character will be retained through the retention of vegetation boundaries and the ability to appreciate the surrounding rural landscape. The development will not be visible from designated assets within the RPG and it will still be appreciated as part of their setting due to the scape and nature of the development. While the development will be visible from parts of the RPG itself (namely the Avenue), the scheme has deliberately not proposed further tree planting to screen the development, in recognition of the importance that planting plays in understanding the historic parkland. Tree planting has been restricted to areas where it is enhancing existing boundaries rather than introducing new planting which would affect longer distance views. Particular regard has been had to the Avenue where the mitigation has been designed to reinstate the alignment, while enabling kinetic views through. With regard to High Lodge, the Applicant acknowledges that the building is a non-designated heritage asset which has an association with the park. It was not considered within the ES as it falls outside of the study area, as such no impacts are considered likely to arise.

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7.45-7.46	**Requirements and Obligations** Agreement and timescales for post consent archaeological programme. Environmental Management Plans to include a section for Heritage Management.	7.45 The Applicant and the LPAs continue to discuss the DAMS in order that it may be submitted as soon as possible. Once submitted, the DCO will be updated to account for the submission of the DAMS that has been developed following a watching brief from the Councils. The DAMS will set out the development of the programme of archaeological investigation, monitoring, assessment, reporting, archiving and publication, post-excavation assessments and updated project design. 7.46 The Applicant updated the Framework CEMP at Deadline 2 [**REP2-026**] to include a requirement for a Heritage Environmental Management Plan (HEMP) to be included within the Landscape Environmental Management Plan (LEMP), which will deal with how impacts to heritage will be managed during construction (alongside the DAMS measures set out in the DAMS submitted at a later deadline once the brief from the Councils is received). The HEMP Section within the updated LEMP, also to be submitted once the brief from the Councils is received, also details the strategies for avoiding heritage impacts as a result of long-term ecological management.
7.47-7.48	Article 15: Request to revise this section to reflect the handling of archaeological human remains, including reference to the need to acquire relevant exhumation licences from the Ministry of Justice Article 17: A Request to include access to areas of archaeological protection Areas	7.48: The Applicant welcomes the Councils' support for inclusion of this provision to survey land affected by the authorised development. It would be beyond the scope of what could be reasonably included within the Order for this power to extend beyond this purpose and to be used for indefinite protection. Any archaeological remains found as a result of the surveys must be handled in accordance with the Detailed Archaeological Mitigation Strategy approved pursuant to Requirement 13.

4 Chapter 8 Ecology and Biodiversity

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8.37 – 8.40 and Annex A	**An Ecological Vision and Ambition for the Sunnica Energy Farm** This group has drafted an ecological vision and ambitions for the Sunnica Energy as a basis for engagement with Sunnica and their consultants in ecological matters (ANNEX A). The vision, set out in the document is that Sunnica Energy Farm should be an exemplar of ecology-led design, construction, operation, and decommissioning to restore and enhance nature, healthy functioning ecosystems, and ecological connectivity. It should leave the natural environment in a measurably better state and make a significant and meaningful contribution to the creation of a Nature Recovery Network in East Cambridgeshire and West Suffolk. The document sets out three clear principles which should be applied; the application of the mitigation hierarchy, protection of statutory and non-statutory wildlife sites, and that Sunnica should have a positive impact on biodiversity and ecology.	**An Ecological Vision and Ambition for the Sunnica Energy Farm** From the outset of the Scheme, the Applicant recognised the important opportunity to link the provision of renewable energy with nature recovery at a significant scale, enabling the intensively managed agricultural land to be restored to a sustainable state over a decadal period of recovery including contributing towards Nature Recovery Networks as referenced in the Draft Overarching National Policy Statement for Energy (EN-1). This is manifested in the consistent approach taken throughout the DCO application in achieving ecology-led design across the Scheme to restore and enhance nature, healthy functioning ecosystems and ecological connectivity, not just within the Scheme but further afield (for example, the water quality and sediment of the Rivers Lark and Snail and the island biogeography effect of a large area of grassland on other grassland "islands"), as an integral part of construction and operation. The Scheme will ensure a natural environment with a demonstrable net gain in biodiversity coupled with the cessation in the application of agrichemicals and use of irrigation along with other such aspects of arable and pig farming husbandry that have been recognised for a long time in terms of environmental degradation. The realisation of the Scheme's ambition will have benefits to the soils and biodiversity within the Scheme and for the biodiversity, water quality and hydrology of the watercourses into which it drains, all of which would make a significant and meaningful contribution to the creation of a Nature Recovery Network in East Cambridgeshire and West Suffolk. These changes will be able to benefit from a 40 year period of ecosystem recovery, a key factor in the response to the concerns that have been expressed regarding the degradation of ecosystems as a result of intensive agricultural land use including soil, biodiversity and the hydrology and water quality of its rivers. Predicting with any certainty the decommissioning of the Scheme in the context of biodiversity is difficult given the changes that are likely to occur in legislation, policy and practice with respect to biodiversity. The key to the Scheme's response to such changes is in the Ecology Advisory Group as an interactive and sustainable vehicle for dealing with biodiversity matters, able to respond in its own terms of reference and membership as the times change. The Applicant recognises and has respected the principles highlighted by the Local Authorities: • the application of the mitigation hierarchy,

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	The groups ambition for the project, concerns and opportunities for conservation and wider ecosystem benefits are also covered. The document also sets out that a long-term partnership with an ecological advisory group comprising ecologists from relevant NGOs, Natural England and local authorities should be secured, to scrutinise monitoring data and adapt habitat management / site conditions and working practices where necessary to meet the ambition for the Scheme, as set out in that document.	• protection of statutory and non-statutory wildlife sites, and • a positive impact on biodiversity and ecology. As identified in the OLEMP [**APP-108**], the Applicant has recommended maintaining the Ecology Advisory Group as a long-term partnership comprising ecologists from relevant NGOs, Natural England and local authorities. Further details of this will be included in the detailed LEMP with terms of reference including such as aspects as scrutiny of monitoring data, adaptive habitat management, site conditions and working practices where necessary to meet the ambition for the Scheme.
8.41 – 8.44 and Appendix B sections 2.3.3 to 2.3.6	**East Cambridgeshire Interim Nature Recovery Network** 'Priority areas for nature enhancement' and the relevant areas in relation to the Sunnica development are shown on the accompanying map (ANNEX C). Two areas are particularly impacted by the Sunnica proposals. The first is the Chippenham Fen and River Snail priority area. The second is the Breckland Edge priority area. At a landscape-scale, the area forms a natural landscape connection between the Brecks and	**East Cambridgeshire Interim Nature Recovery Network** The Scheme facilitates the implementation of green infrastructure initiatives and plans at the landscape scale. To this end, habitat creation recognises the natural soil types as part of the nature recovery envisaged post-intensive agri-husbandry. This includes: • the Chippenham Fen and River Snail priority area enabling the recharge of a pocket of fen peat soils and allowing the hydrology of the remaining area to return to a more natural condition, as well as facilitating the connectivity between Chippenham Fen and Snailwell Poor's Fen and Snailwell Meadows through the creation of appropriate grasslands; and • enabling the restoration of the Breckland Edge priority area with appropriate grassland and associated habitat. The position and role of the Scheme as a natural landscape connection between the Brecks and the Fens is recognised in the sympathetic repair to habitats, i.e. recognising soil types underpinning grassland types (see LEMP), cessation of fertilising and pest control and the recovery of the hydrology including no irrigation, which, given the scale of the development and its decadal timescale, will achieve a connected nature recovery network which would otherwise be hard to achieve.

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	the Fens, and any large-scale development should not compromise the achievement of a connected nature recovery network and should be actively contributing to the conservation and enhancement of the area's biodiversity.	Through the vehicle of biodiversity assessment, it is reassuring that the calculations using metric 3.1 show a significant net gain.
8.51	**Construction phase impacts** 8.51 Whilst it is understood that the ES conclusions are based on the assumption that the identified compensation measures are successful, little recognition is given in the assessment to the difficulty in creating some of the required habitats; this is the reason why avoidance is preferred over mitigation and compensation.	The Scheme design was based on the mitigation hierarchy and certain habitat/areas were avoided, e.g. Stone Curlew habitat. Whilst the ES conclusions are based on the assumption that the identified mitigation, (not 'compensation') measures are successful, the knowledge and experience, both local and national, exists to create the required habitats. Forward planning and provisioning will deal with challenge of scale through the provision of the LEMP.
8.53 – 8.55	**Fenland SAC and Chippenham Fen Ramsar Site** The Stage 1 Screening for Likely Significant Effects failed to consider potential impacts arising from the cabling for Grid Connection Route B. It is understood from the Ecology and Nature Conservation chapter of the ES that laying the cabling will require digging a 2m deep trench	**Fenland SAC and Chippenham Fen Ramsar Site** As a consequence of the depth parameters that have been set and secured through the DCO, the cable trench for Grid Connection Route B, as for all cables, is anticipated to be above the water table and will not affect groundwater flow. If groundwater were to reach the level of the trench, permeable backfill material will not impede groundwater flow across the trench, and the cable pipe itself is small compared to the extent of the aquifer. There will be no significant impediment to groundwater flow and, if any where present, peat will be left unaltered. The small area of fen peat soil is away from the trenching (see soil map below).

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	which is then backfilled with gravel (page 8-94, [**APP-040**]). Assessment to how this could affect drainage at Chippenham Fen Ramsar / Fenland SAC (which drains in a southerly direction), which is crucial to the preservation of the rare fen habitats for which it was designated, is necessary. The HRA needs to demonstrate that the groundwater flow which supports the fens will not be adversely affected by the Scheme. Also, consideration as to how the groundworks required could affect the peat which is present in this area, is needed.	
8.56 and Appendix B sections 2.2.3 to 2.2.6	**Wider Landscape Considerations – Chippenham Fen** Chippenham Fen and the River Snail form a priority area in the emerging Nature Recovery Network for East Cambridgeshire and provide a landscape scale steppingstone between the Fens and the Brecks. The value of this area should be recognised for the role they have offering a prime opportunity for the restoration of biodiversity at a	**Wider Landscape Considerations – Chippenham Fen** The Scheme facilitates the habitat creation underpinning the Chippenham Fen and River Snail priority area by recognising the natural soil types as part of the nature recovery envisaged post-intensive agri-husbandry. Specifically, allowing the fields to return to a more natural condition enables the recharge of a pocket of fen peat soils and restoring the hydrology of the remaining area as well as facilitating the connectivity between the Chippenham Fen and Snailwell Poor's Fen and Snailwell Meadows. **The soils at Sunnica West Site B**

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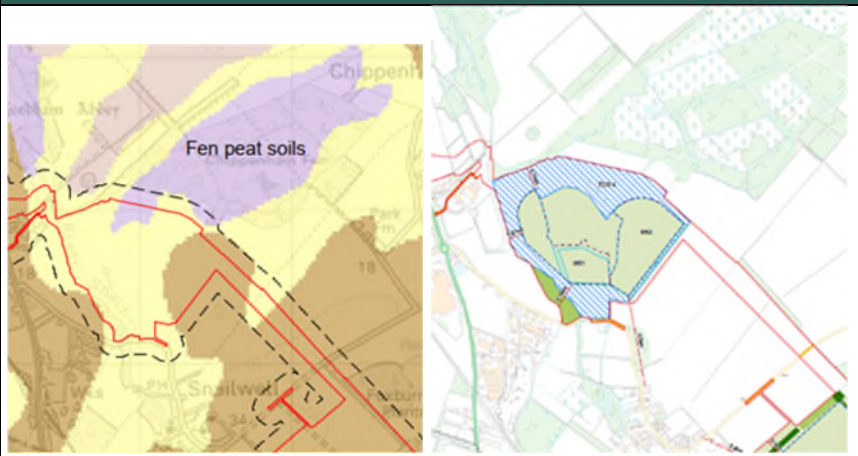
	landscape scale within Cambridgeshire.	 ECO4 = WO1 and WO2 = solar PV arrays Lilac = fen peat soil; yellow: shallow like rich soil over chalk or limestone
8.57 to 8.67		
	Stone Curlew and Breckland SPA 8.57 The Habitats Regulations Assessment – report to inform an Appropriate Assessment [APP-092] stage 1 screening identified the potential for likely significant effects during construction to land that is functionally linked to Breckland SPA and its population of Stone Curlew (physical displacement from functionally linked land and noise, visual and non-physical disturbance). The Councils consider that the scheme should be	Stone Curlew has a fluid distribution within the farming landscape of the Order limits and surrounding area and is reliant on the cropping regime in any given year to provide suitable areas of fallow and spring-sown crops to be able to nest. As such the nesting locations can vary annually depending on this availability. The Scheme has taken this fluid nesting distribution into consideration and sought to avoid blocks of land where regular nesting attempts have been observed *e.g.,* those in ECO3. This principal of avoidance has guided the locations of the offsetting areas which have taken into account not only the species existing distribution, but also the design and construction elements of the Scheme (e.g., to minimise construction disturbance), the location of residential areas and the ability to be able to secure large continuous blocks of land to maximise delivery of habitat creation and nesting plot opportunities and allow for efficient management.

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	designed to avoid the destruction of confirmed Stone Curlew habitat and minimize disturbance to it in line with the mitigation hierarchy.	
	8.58 Based on the information currently submitted, the Councils do not share the applicant's high degree of confidence that the offsetting measures would be effective (APP-092) section 5.3.14. The concern is that there is insufficient detail about the proposed offsetting measures in relation to the habitat creation, methods of delivery, long term management, monitoring and opportunity for remedial actions to robustly offset the adverse effects of the proposals.	The Offsetting Habitat Provision for Stone Curlew Specification **[APP-258]** sets out how the Scheme has embedded sufficient areas within the Scheme design to offset any potential reduction in arable farmland, that may, in any given year, be used by Stone Curlew and avoid a net reduction in breeding and foraging opportunities for the species. The areas embedded within the Scheme design for offsetting impacts on Stone Curlew are either within, or close to current or historical distribution. Therefore, since this replicates the conditions the birds are already utilising, it is considered a suitably robust approach informed by empirical information on the nesting behaviour of the specific Stone Curlew pairs in question in this landscape. Furthermore, the habitat, including nesting plots, has been designed and will be delivered following what has been successful with the other similar habitat and nesting plots around the Breckland area. The Applicant considers that the land embedded within the Scheme for Stone Curlew allows the flexibility for any adaptive management prescriptions to ensure the success of the offsetting areas, the detail of which will be brought forward pursuant to Requirement 10 of the DCO (as amended at Deadline 2 to allow for post consent development). With reference to the Offsetting Habitat Provision for Stone Curlew Specification **[APP-258]** and the Outline Landscape and Ecology Management Plan **[APP-108]**, over 100 ha of predominantly arable farmland have been embedded within the Scheme for reversion to grassland, specifically managed to create a close-cropped sward, suitable for Stone Curlew. Small areas of existing acid grassland have also been retained within ECO 3 of the Scheme design in Sunnica East Site B and these will form the basis of reverting adjacent areas in ECO 3 to semi-natural grassland, characteristic of the Breckland heaths. This equates to greater than the 16 ha per pair and acknowledges the requirement for not only suitable nesting sites, but also the requirement for foraging habitat. Additionally, the provision of ten 2 ha plots maximises the potential for take up with two plots allocated per pair. Plots unoccupied for nesting will contribute an important resource for foraging pairs.

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		The proposed offsetting measures in relation to the habitat creation, methods of delivery, long term management, monitoring and opportunity for remedial actions to robustly offset the adverse effects of the proposals are described in the OLEMP to which further detail will be added. Offsetting habitats have been embedded into the Scheme, as it has been assumed that, in a worst case scenario, Stone Curlew will not nest within the operational site where solar arrays are located.
	8.59 Stone Curlew are known to be sensitive to both human disturbance and to built development. There is a lack of evidence in the public domain to ascertain whether Stone Curlew avoid nesting or foraging near solar panels. However, research has found that Stone Curlew are highly susceptible to disturbance with active responses being recorded at distances of up to 500m.	Whilst it is recognised that the Stone Curlew may use these areas for foraging, the degree of disturbance associated with maintaining the energy farm is low. The Framework OEMP **[REP2-030**, ES - Appendix 16F] includes the requirement for all operational staff working within 500 m of the offsetting areas created for breeding Stone Curlew to be given a toolbox talk regarding the sensitivity of the species and controlling works which can be undertaken. Where possible, any operational maintenance within 500 m of the offsetting areas will be scheduled between November and February. Monitoring of Stone Curlew during operation of the Scheme will establish whether the species is nesting within the solar arrays. Should this be found to be the case then the same requirements, with regard to briefing operational staff and controlling works, will be applied to any locations within the operational areas, that are already included in the Framework OEMP **[REP2-030**, ES - Appendix 16F] for the offsetting areas. Given, the low likelihood that Stone Curlew will nest in the operational areas, seasonal restrictions with regards operational maintenance are not required throughout the Scheme. These measures were included within the updated Framework OEMP submitted at Deadline 2. These observations should be set against an environment in which disturbance from farm vehicles is significantly more intrusive than the level of disturbance from an operational energy farm. The former is undertaken without knowledge of the presence and location of Stone Curlew nests and, when fields are being managed, the disturbance will last for relatively long periods and is undertaken by large and noisy vehicles.

	8.60 Stone Curlew are reported on in Appendix 8I, Annex D of the ES. Stone Curlew surveys, undertaken in 2019, 2020 and 2021, evidenced that five pairs of Stone Curlew are breeding within the order limits or adjacent to it; noting that the survey was not consistently undertaken for the whole of the breeding season nor for all the areas within 500m of the order limits (see ES Appendix 8I 3.2.19-27) and therefore may not be an accurate representation of the use of the area by Stone Curlew. The Councils agree that a minimum of 16ha of suitable habitat is required per pair of Stone Curlew ([APP-258] 4.1.2) and that 2 x 2ha bare ground plots per pair is required (4.1.4). 8.61 The compensation measures proposed for Stone Curlew are for a series of 2ha bare ground plots to be created within a larger areas of grassland habitat totaling 108ha. Further evidence in the ES chapter and LEMP state that 'a maximum of 10x2ha plots will be created' which gives no certainty as to how many will be provided. Based on the current survey effort and taking a precautionary approach, a minimum of at least ten Stone Curlew plots should be provided. 8.62 From the evidence submitted, it is not entirely clear which land	Detailed surveys to determine the number and distribution of breeding pairs of Stone Curlew were undertaken by the Applicant in 2019, 2020 and 2021 (see Appendix 8I - CONFIDENTIAL Annex D of the Environmental Statement **[APP-086]**), following the methodology, as set out in paragraphs 3.2.19-3.2.27 of Appendix 8I: Report on Surveys of Breeding Birds of the Environmental Statement **[APP-085]**. In 2019 surveys of the Order limits and a 500m buffer were undertaken following the RSPB's Stone Curlew monitoring protocol. These surveys confirmed the presence of a population of Stone Curlew using the Order limits and fields immediately adjacent to the Order limits. No further suitable nesting areas were found to be present beyond those observed as supporting Stone Curlew. Given that the presence of a breeding population of Stone Curlew was established in 2019, supported by information on historic nesting records from the RSPB, surveys in 2020 and 2021 concentrated on confirming the continued presence of Stone Curlew within the Order limits and previously identified suitable nesting areas immediately adjacent. Extended visits later into the summer and additional nocturnal surveys using playback techniques to elicit a response were deemed unnecessary and likely to cause undue disturbance to a relatively small and isolated population of Stone Curlew, especially as the presence of the species had already been established. Based on the available suitable habitat for nesting within the Study Area (Order limits and 500m buffer), historic data from RSPB and observations recorded during 2019, 2020 and 2021, the Applicant is confident that the Stone Curlew recorded between 2019-2021 represents an accurate account of the population present in this area and that the number of pairs used in the assessment is the maximum worst-case scenario. In 2019, the breeding population of Stone Curlew present within the Order limits was between 2-3 pairs, with a further pair breeding and either non-breeding or breeding (respectively) within 500m of the Order limits. In 2020, between 1-4 pairs were recorded within the Order land, although just two of these pairs were recorded as breeding, or attempting to breed, with a further pair either non-breeding or breeding outside of the Order land and within 500 m of the Order limits. In 2021, the breeding population of Stone Curlew was 2-3 pairs, with a further two pairs within 500m of the Order limits. The professional view of the ornithologists undertaking the surveys was that these data are robust, and they compare favourably with other assessment for Stone Curlew in similar areas. Surveys of the entirety of the Study Area will be undertaken prior to commencement of any works on site, to provide an accurate picture of the location of Stone Curlew pairs prior to any potential disturbance arising during construction. Measures to mitigate construction disturbance to Stone Curlew are set out in the Framework CEMP **[REP-026]** and will be secured through the CEMP. This will allow the specification to be finalised post-consent to account for the most up to date information as required by Requirement 10 of the DCO.

	would be managed for Stone Curlew as there is some inconsistency in the submission. The 'Offsetting Habitat Specification' (APP-258) suggests that the Stone Curlew plots would be created in ECO1, ECO2 and ECO3, with four plots located within ECO3 and the balance split between ECO1 and ECO2. However, this distribution does not reflect the distribution of Stone Curlew across the two sites. 'The Work Plans' (APP-007) confirm that ECO1, ECO2 and ECO3 would comprise Work No 10 – works to create and maintain Stone Curlew reserves, however they also comprise Work No 6, which would allow other activities many of which will conflict with the establishment and use for offsetting land. Within ECO3, the 2ha Stone Curlew plots should not be located on the areas of existing acid grassland habitat. The Offsetting Habitat Specification (APP-258) indicates that within Sunnica East site B, semi-natural grassland characteristic of grassland heaths in the Brecks would be created (although this is contradicted elsewhere). It goes on to state that within Sunnica East A the offsetting area will be sown with a chalk grassland mix which will be maintained as a closecropped sward. No detail has been supplied to demonstrate how a close-	It is planned to mitigate for five pairs using ten plots (at 2 plots per pair) which would provide sufficient nesting (one plot) and foraging habitat (a second plot) for each pair, although there is the potential that further pairs will occupy plots and that, in some years, the population may be greater. These plots will provide permanent and largely undisturbed habitat for the species that will sustain the population in the local area. There is no necessity for compensation. As detailed in Appendix 8M Habitats Regulations Assessment - Report to Inform an Appropriate Assessment **[APP-092]** and the Offsetting Habitat Provision for Stone-Curlew Specification **[APP-258]** the proposals are to create a maximum of ten 2ha plots, with three in ECO1, three in ECO2, and four across ECO3. This is considered more than adequate to offset any net loss in breeding and foraging opportunities within the Order limits. The locations of offsetting areas have taken into account the species existing distribution, but also the design and construction elements of the Scheme (e.g., to minimise construction disturbance), the location of residential areas and the ability to be able to secure large continuous blocks of land to maximum delivery of habitat creation and nesting plot opportunities and allow efficient management. Indicative locations will be discussed with Natural England during Examination, but flexibility will be retained in the DCO to ensure that the final locations can react to ground conditions prevalent at the time of creation.

	cropped sward will be maintained long-term. 8.63 The Offsetting Habitat Specification (APP-258) sets out how the Stone Curlew plots would be managed in ECO1 and ECO3 with a separate specification for plots in Archaeological Areas at ECO2. However, the parameter plan indicates that the archaeological mitigation area is ECO1. The Councils are concerned that there are conflicts between the management of the archaeological areas and the Stone Curlew habitat in particular the Stone Curlew plots, three of which would be located within the archaeological mitigation grassland.	

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	8.64 It is not clear what the intention is for the wider areas of grassland around the plots, in terms of sward height / density, and how the requirements of other species will be managed alongside those of the Stone Curlew (additional comments on the Outline Landscape and Ecological Management Plan are made below). 8.65 The Offsetting Habitat Provision document (APP-258) suggests that the new plots will be provided in advance of the loss of existing habitat and ahead of the breeding season prior to construction commencing. However, there is no confirmation that the 108ha of grassland would also be created prior to any habitat loss.	The details of how the close-cropped sward will be maintained will follow at the detailed LEMP stage.
	8.66 The potential for construction disturbance on Stone Curlew within 500m of nesting locations or newly created habitats during the breeding season is recognised in section 5.3.16-17 (APP-092). However, the measures proposed are focused on Stone Curlew within the DCO site and do not attempt to mitigate effects on Stone Curlew	The Applicant recognises that these are important points of detail. They will be dealt with and specified in the detailed CEMP and LEMP.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	which may nest within 500m of the DCO site.	
	8.67 The Councils welcome the proposal to monitor Stone Curlew during construction (APP-092) section 6.1.2. Monitoring should include use of the Stone Curlew offsetting areas and the condition of these habitats, in the context of providing optimal nesting and foraging habitat. The monitoring should additionally include those areas within 500m of the construction site where there is suitable nesting habitat during the breeding season and should follow the RSPB guidance. These measures will also need to be secured in the CEMP (APP-123).	The CEMP provides for monitoring of Stone Curlew and the proposed habitat. This has been updated further in the CEMP submitted at Deadline 3. Monitoring of Stone Curlew prior to and during operation of the Scheme will establish whether the species is nesting within 500 m of the Order limits. Should this be found to be the case, then the same requirements, with regard to briefing staff and controlling works, will be applied to any locations where there is potential for disturbance within the Stone Curlew breeding season (March to September inclusive) within the 500 m zone, that are already included in the Framework OEMP [**REP2-030**, ES - Appendix 16F] for the offsetting areas. Given, the low likelihood that Stone Curlew will nest in the 500 m zone due to the low quality of habitat, seasonal restrictions with regards operational maintenance are not required throughout the Scheme. Operational monitoring of Stone Curlew plots, secured through the OEMP, will help to establish the location of nesting locations within the Order limits and for the surrounding 500 m zone. The management of Stone Curlew plots will be within the remit of the Ecology Advisory Group, which will use the monitoring data to ensure that management techniques are compatible with protection of the species' nests and chicks, pursuant to the LEMP. As there will be no below ground disturbance either during vegetation establishment or maintenance, there are no conflicts between the management of the Stone Curlew habitat, in particular the Stone Curlew plots, and the archaeological areas, where the archaeology is proposed to be left *in situ.*
8.68 to 8.71	**In Combination Effects – Stone Curlew** 8.68 The Councils are aware of planning applications in the immediate area of the development that should be considered in-	The provision of habitat for breeding Stone Curlew within the Scheme ensures that there is enough suitable habitat such the birds will remain within the Scheme boundary and, hence, there will be no impact on the Breckland SPA. In this case there is no effect which could act in combination with other plans and projects in the immediate area. On this basis, there are no in combination effects with those projects identified in 8.69, 8.70 and 8.71.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	combination with this application because of the potential for effects on Stone Curlew.	
8.72 to 8.78	**Havacre Meadows and Deal Nooks County Wildlife Site** The Works Plans (sheet 8, [**APP-007**]) show the proposed cable route A will go through Havacre Meadows and Deal Nook County Wildlife Site. The County Wildlife Site supports semi-improved grassland, woodland, scrub and open water, as well as willow carr. The Councils require confirmation as to whether or not the embedded mitigation of a 30m buffer zone will be breached by the proposed cabling works. If a trenchless crossing is to be utilised, the Councils seek a detailed drawing to demonstrate how the 30m buffer zone will be implemented. Also, how deep the tunnel will be and whether this will impact the habitats present, including hydrology. The Councils require monitoring of the construction impacts on the Havacre Meadows and Deal Nook County Wildlife Site to be incorporated into the Framework	Horizontal Directional Drilling is being proposed at Havacre Meadows and Deal Nook CWS with entry and exit pits set back from the boundary of the CWS to conform to the 30 m buffer zone to increase confidence that this receptor will not be adversely impacted, as secured through the Framework Construction Environment Management Plan. The profile of the cable pipe is very small compared to the extent of the aquifer and therefore is not anticipated to impede groundwater flow contributing baseflow to rivers and other groundwater dependent water features. No monitoring is therefore required.

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	Construction Environment Management Plan [**REP2-026**].	
8.79 to 8.80	**Badlingham Lane CWS and Worlington Heath CWS** The assessment in the ES states that both Badlingham Lane CWS and Worlington Heath CWS will be retained habitats and will remain undeveloped. However, the Works Plan shows Worlington Heath CWS is within Work No 6B and 10 and parts of Badlingham Lane CWS is within Works No 1Biii, 6B and 10. In addition the Landscape masterplan shows these sites to be washed over with native grassland planting. The assessment of non-significant effects is reliant on measures within the CEMP being implemented including the site security fencing and buffering to the sites. It is not clear from the CEMP how much of a buffer will be provided and how the site security fencing will prevent ingress by construction activities into these sites.	Noting that Work No. 6 relates to the provision of green infrastructure, including maintenance of existing, it can be confirmed that Badlingham Lane CWS and Worlington Heath CWS will be retained habitats and will remain undeveloped and not subject to any additional grassland planting. Whilst Work No. 1B (iii), which allows for the laying of electrical cables connecting to Work No. 3B, includes Badlingham Lane CWS, there is ample room to avoid the CWS in the land included within Work No. 1B (iii) and this avoidance and protection of designated sites, including CWSs is secured through the CEMP. There will be no built development within these CWSs. This is secured through the CEMP requirement that "*Existing designated sites within the Order land will be avoided and measures embedded within the Scheme design will ensure that they are not affected during construction".* The CEMP presented to LPAs for approval will specify how much of a buffer will be provided and how the site security fencing will prevent ingress by construction activities into these sites. This will be dependent on the detailed construction methodology.
8.81 to 8.83	**Phase 1 Habitat Mapping** The Councils are concerned about the accuracy of the baseline phase 1 habitat mapping and seek that the Phase 1 habitat survey results are	The Applicant has reviewed the Phase 1 mapping and undertaken any necessary updates. This will be reported during the examination process and used to inform the Biodiversity Net Gain calculations using the Defra Metric 3.1. Where uncertainty remains over the quality of any habitats then a precautionary approach will be used to assign value and condition.

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	reviewed, with appropriate surveys undertaken, where necessary.	
8.84 to 8.127	**Terrestrial Invertebrates** 8.85 - What management is planned for ECO3 habitat?	**Terrestrial Invertebrates** Cultivation programme will be required at ECO3, refer to paragraph 1.8.16 from the LEMP. The following cultivation programme is required in ECO3: a. By mid-March prior to construction, prepare the whole 2 ha plot by discing/ light cultivation, ideally in February. This creates a rough bare fallow that provides suitable conditions for the first Stone Curlew nesting attempt. b. During May of the plots being operational, spray the whole plot using a non-selective herbicide ideally when the vegetation is no more than a few centimetres tall. This will create bare ground rather than a mat of dead vegetation. Spraying reduces the risk associated with intrusive management (such as through mowing) to a level that will not impact the population of Stone Curlew. The only danger from spraying, to Stone Curlew nests/chicks, is from tractor wheels. If the nest location is known it may be possible to reduce this risk by avoiding the area around the nest and/or by spraying only half of the plot. c. Retain the fallow through the autumn/winter (at least until end of September). Stone Curlew can nest late into the year so the fallow must be left until the end of September. If left through winter, it will provide a vital source of seeds for farmland birds. The short term management (0-5 years) would involve the following: a. Visual inspections during the growing season; b. Looking for establishment rates and whether certain species are at risk of out competing the grassland; c. Grassland mown between two and four times at even intervals throughout the growing season to control the more competitive species and allow the newly sown less competitive species to establish; d. Grassland cut in autumn (once grassland has set seed) with cut grass left in situ for 24hrs; e. Cut vegetation will be removed from the grassland area (in combination with a litter pick); and f. Targeted weeding (including no residual herbicide) if invasive species recorded.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		The long term management (5+ years) will involve: a. The intention for long term management is low intensity conservation grazing once the grassland has established. Compartments A, E12 and E13 (margins) all qualify as being of between County and Regional Value for their invertebrate fauna with the majority being retained. The maintenance of these and other margins will sustain the assemblages present, and as other margins develop plus the cessation of agro-chemicals, there will be a consequent enhancement. Translocation would follow published good practice guidance such as the CIRIA publication (Anderson and Groutage, 2003), and Blakesley et al. (2016). For the first few years after initial planting, habitat maintenance will be minimal to allow areas to establish naturally.
	8.86 - Areas E12, E13 and A will be retained? Detailed assessment of how the impacts will affect the conservation status of the species / assemblages present in areas E12, E13 and A. 8.87- Habitat translocation details	Botanical and protected species surveys will be carried out to ensure the habitat developed as anticipated and that there are healthy populations of species that have been translocated to these sites. Where issues arise, such as over dominance of a particular species or habitat, then appropriate reactive responses will be undertaken to ensure the diversity of the habitats. Habitats will be managed to ensure that the structure and diversity of habitats is retained. Management through a range of measures including mowing, flailing and grazing would be employed to control natural succession and create the disturbed conditions which this broad habitat benefits from. Planting of habitats will be with species that are found locally to tie in with the surrounding areas. After the 5-year establishment period, long-term monitoring would be undertaken to assess the success of the grassland in terms of developing into the relevant target priority habitat.
	Arable Habitat and Notable Flora 8.88 -Why arable field margins (a priority habitat) are not identified on the Phase 1 Habitat survey plans [**APP-187**] or reflected in the	**Arable Habitat and Notable Flora** Arable field margins were recorded on the Preliminary Ecological Appraisal report (Appendix 8B) as biodiversity priority habitat. Table 4-8: Notable habitats within the Order Limits provides a summary of notable habitats associated with the Order limits based on the results of the Phase 1 Habitat survey and arable field margins is within this table.

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	Biodiversity Net Gain Assessment [**APP-259**]?	In the Biodiversity Net Gain Assessment [**APP-259**] arable field margins have been assessed within the cropland- cereal crops habitat.
	8.89 - Arable field margins appear to have been excluded from the detailed arable flora surveys.	All accessible arable fields in the Order limits were surveyed for important arable plants, recording lists of scarce arable plant species for each field surveyed. Arable field margins have been assessed in the Terrestrial Habitats and Flora report (Appendix 8C). Phase 2 botanical surveys identified arable field margins of up to county nature conservation importance.
	8.90 - why only Sunnica East Site B is included in this assessment of effects when Sunnica West Site A contains a field supporting County importance arable flora (Field ref W09 from Parameter Plans [**APP-136**] / AF11 from page 7, Appendix 8C report [**APP-078**]).	Sunnica West Site A was included in the assessment of effects as well as Sunnica East B. Refer to Section 8.10.22 (Direct loss of arable habitat supporting notable arable flora in Sunnica West Site A) of the ES Chapter 8 **[APP-040]**.
	8.91 - Sunnica West Site A, how these changes to the current land use will affect this field supporting County importance arable flora.	The habitats containing rare/scarce arable flora (i.e, notably within and along the boundary of the retained grassland south of W09) have been avoided and will be managed positively for arable flora that will include an annual winter bird cover crop and will also provide suitable habitat for arable flora under suitable management. Additional strips will also be provided around the solar array specifically managed for arable flora. Details of this management will be provided in the LEMP.
	8.92 - Creation of habitats for arable flora	Habitat loss is quantified in terms of number of fields with arable flora that are lost, i.e. 12 fields in Sunnica East and seven fields in Sunnica West (see Table 8.7 of the ES Chapter 8 [**APP-040**]). The exact distribution of arable flora (other than higher importance species) was not mapped and would be likely to change annually due to changes in crops/grazing. A comparison of arable flora habitats pre- and post-construction will be undertaken in a revised Biodiversity Net Gain report to be issued by Deadline 5.
	8.93 - The Councils do not believe that these will create viable habitats. Their small sizes and lack of connectivity are highly unlikely to result in long-term viable habitats	The precise size and location of these and other areas for arable flora such as Stone Curlew mitigation areas will be confirmed in the final LEMP. It is likely they will be located along southern solar array margins, or adjacent to access tracks to provide suitable habitat conditions and access for management. These areas will experience an arable field margin-like management.

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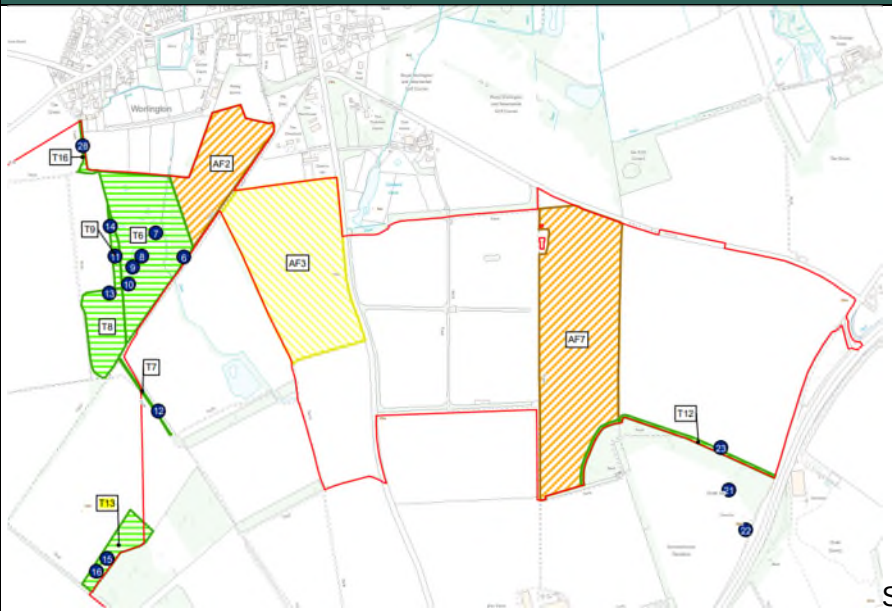
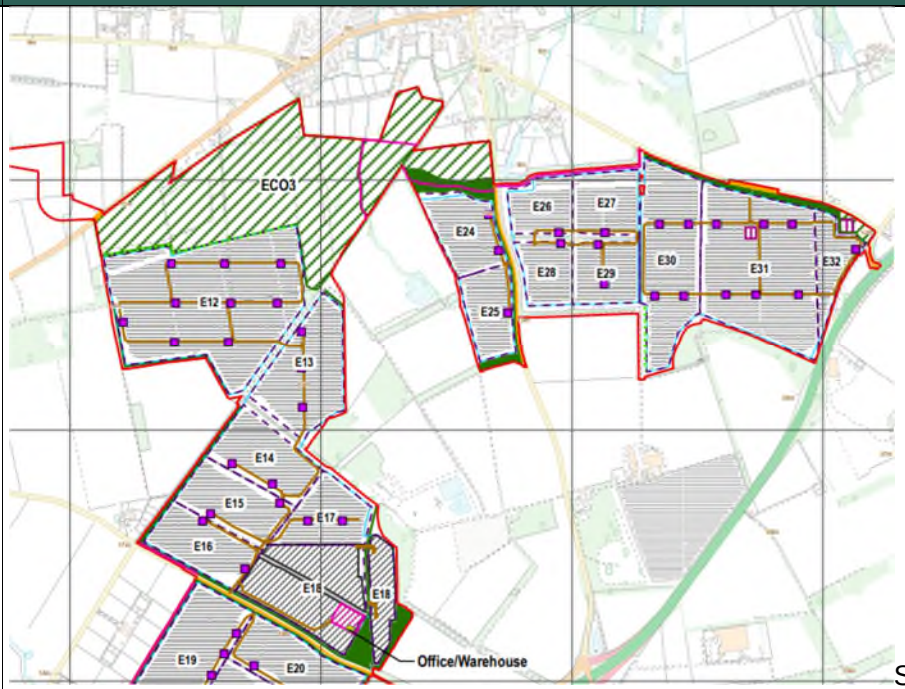
	for scarce arable plants; connectivity would allow movement of seeds in the soil and make long-term management easier 8.94 - Details of construction activities will create ground disturbance that may benefit arable flora 8.95 - Areas for scarce arable plants	*Para 8.10.7: "It is possible that construction activities will create ground disturbance that may benefit arable flora during the construction in certain areas, i.e. disturbance of the soil and clearance of arable crops may encourage arable plant species present in the seedbank to colonise."* Arable plants need regular disturbance to survive. Disturbance is an important part of conservation management to help these species thrive. Construction activities can help these species present in the seedbank to colonise the new areas. The large areas of grassland (99 ha of grassland at Sunnica East and 96 ha at Sunnica West that will include 31 ha dry acid grassland, 26 ha of marshy grassland and the remaining 138 ha of biodiverse grassland) will include marginal strips for arable flora, and disturbed bare open ground areas surround the solar panels and along access roads to promote annual seed-bearing plants (including important arable plants) and areas managed for arable flora. The management of these areas will be finalised in a final LEMP. This would include annual soil rotavation, avoiding planting of field margins and avoiding the use of herbicides around the solar panels. These new habitats will link up with those in the environs of the Scheme.
	Acid Grassland 8.96 - 0.8 ha of semi-improved acid grassland will be lost to construction. Details of the semi-improved acid grassland within E13	**Acid Grassland** Semi-improved acid grassland within the scheme is located at Sunnica East Site B, and comprises areas T6 (ECO3), T8 (ECO3) and T13 (E13): these areas are categorised as acid grassland U1 Festuca ovina-Agrostis capillaris-Rumex acetosa grassland with up to three Nationally Scarce species. T13 (E13) details: Short acid grassland similar to T6 and T8. A diverse range of species include Creeping Bent, Viper's Bugloss, Ribwort Plantain, Crested Hair-grass, Lady's Bedstraw, Hare's-foot clover, Hound's-tongue, Yarrow, Biting Stonecrop Sedum acre, Mouse-ear Hawkweed, Sheep's-sorrel, Thyme-leaved Sandwort, Spring Vetch, Little Mouse-ear, Field bindweed, Smooth Hawk's-beard and Whitish Feather-moss. It includes the Nationally scarce Bur Medick and the uncommon Smooth Cat's-ear. It has affinity to NVC community type U1 Festuca ovina-Agrostis capillaris-Rumex acetosa grassland. T12 is a semi-improved neutral grassland field margin strip 10-20m wide between woodland and arable field, comprises a small area (0.6ha) of semi-improved grassland acid to calcareous grassland with a local species of interest, Cat Mint (classified as a CPASI); and E31 comprises an arable field.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		 Screenshot from Terrestrial habitats and flora report (Figure 2.2 Flora surveys 2019 to 2020. Page 3 of 10)

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	8.97 - linear areas of habitat at the margins of the Order limits and at the edge of the solar panel arrays should be removed from the solar panel areas and retained. 8.98 - ECO3 management	 Screenshot from Figure 3-1 Sunnica East Parameter Plan These areas will remain. Parcels ECO3 will establish a substantial offset from Freckenham Road, to reduce the perception of the solar panels and proximity to residents. The U6006 County Wildlife Site will be retained and is proposed for native chalk grassland as an improvement to the land cover compared to the agricultural fields. This parcel ECO3 will be managed as a natural regeneration of acid grassland through fallow and mowing/grazing and ground disturbance for stone curlew plots. T13 (E13) will be managed for pollinators (B-Lines) and for stone curlew.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		The following cultivation programme is required in ECO1 and ECO3 as secured in the LEMP: a. By 15th March prior to construction, prepare the whole 2ha plot by discing/ light cultivation, ideally in February. This creates a rough bare fallow that provides suitable conditions for the first Stone Curlew nesting attempt. b. During May of the plots being operational, spray the whole plot using a non- selective herbicide ideally when the vegetation is no more than a few centimetres tall. This will create bare ground rather than a mat of dead vegetation. Spraying reduces the risk associated with intrusive management (such as through mowing) to a level that will not impact the population of Stone Curlew. The only danger from spraying, to Stone Curlew nests/chicks, is from tractor wheels. If the nest location is known it may be possible to reduce this risk by avoiding the area around the nest and/or by spraying only half of the plot. c. Retain the fallow through the autumn/winter (at least until 30th September). Stone Curlew can nest late into the year so the fallow must be left until the end of September. If left through winter, it will provide a vital source of seeds for farmland birds. The timing of any management may need to be adjusted in accordance with any breeding attempts and this will be informed by the post-construction monitoring. Whilst cultivation of plots is generally preferred to suppress vegetation, it may be necessary to spray plots with an appropriate herbicide, rather than mow. Again, this would be informed by the post-construction monitoring. To create the grassland outside the plots, the surface would be raked followed by hydroseeding across the existing surface. The short- term management (0-5 years) would involve the following: a. Visual inspections during the growing season; b. Looking for establishment rates and whether certain species are at risk of out competing the grassland; c. Grassland mown between two and four times at even intervals throughout the growing season to control the more competitive species and allow the newly sown less competitive species to establish; d. Grassland cut in autumn (once grassland has set seed) with cut grass left in situ for 24hrs;

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	8.99 - Habitat translocation details	e. Cut vegetation will be removed from the grassland area (in combination with a litter pick); and f. Targeted weeding (including no residual herbicide) if invasive species recorded. The long-term management (5+ years) will involve: a. The intention for long term management is low intensity conservation grazing once the grassland has established. Translocation would follow published good practice guidance such as the CIRIA publication (Anderson and Groutage, 2003), and Blakesley et al. (2016) and use the experience of ecologists within the Sunnica team. For the first few years after initial planting, habitat maintenance will be minimal to allow areas to establish naturally. Botanical and protected species surveys will be carried out to ensure the habitat developed as anticipated and that there are healthy populations of species that have been translocated to these sites. Where issues arise, such as over dominance of a particular species or habitat, then appropriate reactive responses will be undertaken to ensure the diversity of the habitats. Habitats will be managed to ensure that the structure and diversity of habitats is retained. Management through a range of measures including mowing, flailing and grazing would be employed to control natural succession and create the disturbed conditions which this broad habitat benefits from. Planting of habitats will be with species that are found locally to tie in with the surrounding areas. After the 5-year establishment period, long-term monitoring would be undertaken to assess the success of the grassland in terms of developing into the relevant target priority habitat.
	Trees, Woodland and Hedgerows 8.100 - details relating to the removal of trees.	**Trees, Woodland and Hedgerows** Refer to Appendix 10B: Tree Constraints Report and the Arboricultural Impact Assessment Report submitted at Deadline 3 for removal of trees within the Scheme. Although the Arboricultural Impact

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	8.101 - details of the length of hedgerow to be planted and when restoration will be undertaken.	Assessment reports minimal loss with respect to trees, this is not significant in EIA terms. This information will be included within the biodiversity net gain (BNG) updated calculations. 7.4 km of hedgerow infill planting and creation, including species such as Blackthorn, Hazel and Hawthorn, have been embedded in the Scheme. The hedgerow restoration will be undertaken prior to operation of the solar farm, as secured through the CEMP [**EN010106/APP/6.2**]. 1.1 km of hedgerows will be removed and 1.1 km of hedgerow will be lost. The biodiversity net gain calculation will be updated to take this into account.
	8.102 - hedgerow survey missing information	In March 2019, a Preliminary Ecological Appraisal (PEA) survey was undertaken of the Sunnica Energy Farm site (hereafter referred to as the Scheme). All habitats, including all hedgerows were surveyed during the Phase 1 habitat survey in March 2019. This PEA identified the need for follow-up ecological surveys and assessments to help determine a baseline and potential impacts of the proposed Scheme on protected or notable (A notable species is a species with a conservation designation, but no legal protection) species. As part of this work, Phase 2 botanical surveys (including National Vegetation Classification (NVC) survey), a hedgerow survey and an arable flora survey were undertaken between 2019 and 2021 within the Scheme boundary. During the Phase 2 botanical surveys all hedgerows (all mature hedgerows within the Order limits) that will be impacted upon by the Scheme were surveyed for their 'importance' under the Hedgerow Regulations, the rest were scoped out of requiring any further assessment on the basis that they were not to be affected. As such the Phase 2 botanical survey constitutes those hedgerows that will be affected by the Scheme. The Arboricultural Impact Assessment reports minimal loss with respect to trees, this is not significant in EIA terms.
	Veteran Trees 8.103 - why the two sightings of veteran trees have not been assessed.	**Veteran Trees** As a result of the recently produced Arboricultural Impact Assessment, certain trees including two veteran trees have been identified for assessment including for potential bat roost sites. The results will be reported at Deadline 4.

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	Watercourses 8.104 - effect on riparian mammals of the proposals (intrusive river crossings) on watercourses	**Watercourses** Impacts from intrusive crossings largely arise from direct disturbance of the riparian zone and channel, and indirect impacts during the construction period from the potential risk of fine sediment and chemical pollutants draining into watercourses if not adequately controlled. Mitigation will be delivered through good industry practice as outlined in the CEMP and Water Management Plan (WMP). All works during construction of the Sites and the non-intrusive crossings for the cable corridor will be undertaken at least 10m away from watercourses, used by Water Vole, as detailed in the embedded design mitigation. These offsets will prevent disturbance to riparian habitats and any Water Vole using them. The crossing of watercourses where the presence of Otter and Water Vole have been determined, as well as the River Kennett, River Snail, Lee Brook, New River and Burwell Lode, will be undertaken using boring, micro-tunnelling or moling methods, with appropriate setbacks from the top of the banks (depending on habitats and other individual ecological constraints). Utilisation of these non-intrusive measures for construction (with appropriate setbacks) will therefore avoid disturbance to species, habitat loss and direct mortality for water vole and otter, and intrusive river crossings. A full list detailing crossing methods and an explanation of these techniques is provided in Chapter 9: Flood Risk, Drainage and Water Resources of this Environmental Statement [**APP-041**]. Mitigation will be undertaken during the water crossing with intrusive techniques. Refer to Appendix 16c: Framework Construction Environmental Management Plan for further details.
	Breeding Bird Assemblages 8.107 - 8.109 - impacts effect on breeding bird species, details regarding compensation habitats	**Breeding Bird Assemblages** Breeding bird mitigation is proposed which includes proposed grassland planting and new woodland; retention of existing woodland, wetlands and other vegetation; provision of replacement habitat; and offsetting areas, where there will be no development. Overall, this provides mitigation for breeding birds and there is no need for compensation for the Scheme for impacts to breeding birds. The arable land within the Scheme will be replaced to a large extent by dry acid grassland creation and will be managed as biodiverse grassland, suitable for foraging Stone Curlew and breeding farmland birds, e.g. Lapwing and Skylark. Throughout the Scheme, a range of new grassland mixes are proposed beneath the solar panels to improve the range of fauna and increase the biodiversity, in comparison to existing intensive

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		agriculture. Management will be undertaken in a variety of ways to ensure maximum biodiversity gains. This may include leaving open areas between or surrounding the panels or adjacent to new access roads. Creating disturbed open bare ground areas to promote annual seed-bearing plant species will benefit declining farmland birds such as Turtle Dove (*Streptopelia turtur)*. Around the periphery of the panels, these areas will be managed and enhanced for arable flora which will benefit a range of wildlife, including terrestrial invertebrates, amphibians, reptiles; small mammals (such as voles), and both foraging and ground nesting birds. Leaving rough areas of grassland margins, which will benefit small mammals, will also provide foraging habitat for Barn Owl Tyto alba. The southern section of field W09 (refer to the illustrative parameter plans (see Figures 3-1 and 3-2 of this Environmental Statement [EN010106/APP/6.3]) will be sown with a winter bird cover crop. This will extend the existing cover crop present in the field and provide a greater resource during the winter months for farmland bird species. A maximum of ten 2 ha nesting/foraging plots for Stone Curlew will be created in advance of construction and of the Stone Curlew breeding season. As well as the bare ground plots, approximately 108ha of predominantly arable farmland have been embedded within the Scheme for reversion to grassland, specifically managed to create a close-cropped sward, suitable for Stone Curlew. Small areas of existing acid grassland have also been retained within the Scheme design in Sunnica East Site B and these will form the basis of reverting adjacent areas in Sunnica East Site B to semi-natural grassland, characteristic of the Breckland heaths. In time this will provide a high-quality habitat, offering both nesting and foraging opportunities for Stone Curlew. The disturbed plots will be retained within these established grassland areas for the lifespan of the project. Within Sunnica East Site A the offsetting area will be sown with a chalk grassland mix and managed specifically for Stone Curlew, i.e. maintaining a close-cropped sward. The plots will be retained within these established grassland areas for the lifespan of the Scheme.
	Wintering Birds 8.110 - the loss of arable habitat will lead to the displacement of the wintering bird species reliant on this habitat and suggests that it will be mitigated through the creation of new grassland and cover crops.	**Wintering Birds** Adverse effects will be avoided and mitigated through the retention of existing grassland/cover crops and undeveloped mitigation areas.

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	How adverse effects will be avoided given the significant loss of arable land.	
	Bats 8.111- the magnitude / significance of the effect of the construction phase on bats has not been adequately assessed within Chapter 8 Bat roosts location.	**Bats** The scale and types of impacts on bats is summarised in Table 8-10 of the ES [**APP-040,** Chapter 8]. These include potential impacts to roosting, foraging and commuting bats from habitat loss and change, disturbance, lighting during construction and operation. This was assessed as not significant. The construction of the Burwell National Grid Substation Extension would have led to the loss of two trees used as day roosts by low numbers of common and soprano pipistrelle bats. These bat roosts were confirmed in trees T3 and a tree between T8 and T9 (in Table 4-1 from the report on Survey of Bats [**APP-087,** Appendix 8J]). The tree between T8 and T9 is tree T22 in [**APP-087**, Appendix 8J, Annex D]. Due to design changes, these trees will not now be removed or otherwise disturbed. All other potential/confirmed roosts are likely to be retained, hence the scoping out of a number of trees and hedges from the site surveys, as they are either located outside the boundary of the Scheme or retained and avoided as part of the embedded mitigation. This has not affected the assessment of the impacts on bats as the construction of the Scheme will not impact upon any important features used by bats such as mature, species-rich hedgerows and other boundary features, which will retain connectivity across the Order limits for commuting and foraging bats. Extensive areas of new grassland habitats are likely to be of benefit to terrestrial invertebrates, which in turn will provide increased foraging opportunities for bats.
	8.112 - Bat roosts locations	Bat roosts are confirmed in trees T3 and a tree between T8 and T9 (in Table 4-1 from the report on Survey of Bats [**APP-087**]). The tree between T8 and T9 is tree T22 in Annex D.
	8.113 - hedgerows H1, H2, H3, H4, H5, H6, H8, H9, H10, H11, H16, H17, H18, H19, H20, H21, H22, H23, H24, H25, H26, H30, H31,	Not every hedgerow was surveyed for bats, and not required to determine the value of the site for foraging or commuting bats. Many hedges and tree lines were included in bat activity surveys to help determine the value of the Site by foraging and commuting bats. Habitats were collectively assessed as County value to commuting/foraging bats and this wouldn't change with the inclusion or not of

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	H36, H39, H42, H43, H44, H48, H51 and H54 (figure 3.1, Terrestrial Habitats and Flora Report [**APP-079**]). Clarification of the value of these hedgerows to bats.	every hedgerow. These habitats do serve a role in terms of foraging and commuting however they are as they are either located outside the boundary of the Scheme or retained and avoided (other than for some minor access clearance) as part of the embedded mitigation no significant effects are predicted.
	8.114 - The Sunnica East and Sunnica West Site Accesses Review identifies tree / hedgerow remove or cutting back as part of the site access works for Sunnica East site access A, B, C and Sunnica West site access A. It also appears likely that tree works will be required as part of Sunnica West site access B, D and Cable Route site access M. Assest the impact of these works on bats.	All these accesses have been assessed on impacts on bats during the bat surveys undertaken within the scheme. A high roost suitability woodland for bats, comprising species as blackthorn and Scots pine, is located at Sunnica East Site access B. Access A and C at Sunnica East Site will not be affected by trees/hedgerows with roost suitability. A negligible line of trees (six beech trees) is located at Sunnica West Site access B. A high roost suitability line of trees (woodland) is located at Sunnica West Site access D. Line of trees with negligible roost suitability for bats is located at cable route site access M. If any tree needs to be removed at these locations, bat surveys will need to be undertaken prior commencing the works to determine if bats can be impacted by the works.
	8.115 - A tree identified a high potential for roosting bats (tree 657, Figure 2.5, [APP-087]) appears to be affected by the proposed junction work for site access C for Sunnica West (Figure 36, Annex C1, Framework Construction Traffic Management Plan and Travel Plan [APP-118]). Assest the potential impacts on this tree.	For Sunnica West - Access C, established trees are located on both side of the access. However, no significant removal of vegetation will be required, although some cutting back and reduction in height of hedgerow and trees (removal of branches) will be undertaken. As tree 657 has been identified a high potential for roosting bats, bat roost surveys (emergence /re-entry) will be necessary at this location in the year prior commencing the works. If a bat roost is confirmed at this location a bat mitigation licence (e.g. an EPSML) will be required to be obtained prior to the loss of this roost.
	8.116 - tree works (removal of branches) will be associated with alteration of streets work AS-36. the	At this location, streets work AS-36 could require the tree in the central island to be trimmed back in order not to make contact with the crane during the manoeuvre, but this would need to be confirmed

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	tree at this location is not identified within the bat survey report [APP-087].	prior to construction. Surveys at this location will be necessary prior to commencing the works to assets impacts on bats. Figure 30: 1000T Crane Egress  Figure 31: B1102 Mildenhall Road Google Earth Street View 
	8.117 - 8.119 There has been no consideration of construction impacts including lighting of works / compounds / substation. Details of light and noise disturbance measures are needed during construction. Detail on measures that will be taken to avoid lighting bat migration corridors, potential roost features, confirmed roosts, and foraging habitat must be provided in the CEMP as the report states that the site is of 'up to county importance for bats'. This must include during construction, operation, and decommissioning phases.	Mitigation measures for construction are set out in Appendix 16C CEMP – Control of light (Page 16C-5) and Lighting (Page 16C-21) and reflect standard practice to the management of these measures. The presumption that such measures will mitigate impacts to bats is also well precedented. All construction lighting will be deployed in accordance with the following recommendations to prevent or reduce the impact on human and ecological receptors: a. The use of lighting will be minimised to that required for safe site operations; b. Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20° from horizontal); and c. Lighting will be directed towards the middle of the construction site rather than towards the boundaries. Controls on lighting/illumination to minimise visual intrusion and potential adverse effects on sensitive ecology, such as bats, will be considered as far as reasonably practicable. Details of bat flight lines and suitable habitat is provided within Chapter 8 of this Environmental Statement [**APP-040**]; these areas will be identified prior to construction and controls on lighting and illumination will be implemented.

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		Temporary construction site lighting will be designed as far as reasonably practicable so as to minimise artificial light spill from the site. Lighting will be kept to a minimum during construction works. Construction working hours will be 7am until 7pm Monday to Saturday and during construction in the winter months, mobile lighting towers with a power output 8kVAs will be used. Any lighting required during the construction phase will be directed away from retained habitats and include hoods or cowls to direct light forwards into the construction areas. Control of Noise during construction phase: A display board will be installed on-site and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom complaints can be lodged. A log book of complaints will be prepared and managed by the Site Manager. Applications for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (COPA) will be submitted to the relevant local planning authority for all construction activities which are required to be undertaken. Noise monitoring will be undertaken throughout construction. Best Practicable Means (BPM) will be applied (refer to Table 3-6 Noise and Vibration, Appendix 16C CEMP), as far as reasonably practicable, during construction works to minimise noise and vibration at noise sensitive receptors, including neighbouring residential properties and other sensitive receptors arising from construction activities. **During operation phase** (Refer to Appendix 16F OEMP - Control of light (Page 16F-4) and Lighting (Page 16F-7)): Control of light: Permanent lighting with motion sensors will be installed within the substations and BESS compounds, providing a maximum of 50 lux. Any night works required on the solar panels during operation will use mobile lighting towers. Lighting: Throughout the Scheme, the use of motion detection security lighting to avoid permanent lighting is embedded in the Scheme design and the inward distribution of light will avoid light spill on to existing boundary features. CCTV cameras will use infra-red technology removing the need for security lighting along the perimeter of the Sites. Control of Noise during operation phase (refer to Table 3-6 Noise and Vibration, Appendix 16F OEMP):

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		As the plant design is progressed, the specification of plant machinery with low noise emission and properly attenuated supply and extract terminations will help to minimise noise emissions. The use of enclosures, local screening, mufflers, and silencers will also be used as appropriate. Should the noise exhibit any such acoustic features then the relevant penalty/ correction should be applied in accordance with BS 4142. Plant such as the substation and batteries will be designed to have minimal tonal, impulsive or intermittent features. **During decommissioning phase** (Refer to Appendix 16E DEMP – Control of light (Page16E-4) and Lighting (Page 16E-19)): Lighting: Temporary site lighting during decommissioning required to enable safe working during hours of darkness will be designed as far as reasonably practical so as not to cause a nuisance outside of the Sites. Standard best practice measures will be employed to minimise light spill, including glare. Control of Noise during decommissioning phase: Applications for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (COPA), or equivalent process at the time if this process has been superseded, will be submitted to the relevant local planning authority for decommissioning activities. Best Practicable Means (BPM) (refer to Table 3-6 Noise and Vibration, Appendix 16E DEMP) will be applied, as far as reasonably practicable, during decommissioning works to minimise noise and vibration at NSRs, including, neighbouring residential properties and other sensitive receptors arising from decommissioning activities.
	Badgers 8.120 - how many setts will be impacted by the proposed scheme, how the mitigation measures will be effectively implemented, and the level of impact of the scheme on Badgers.	**Badgers** There are nine Badger setts (setts: 1, 6, 7, 8, 9, 11, 12, 13 and 14) located within the Order limits of the Scheme. Due to the presence of a Badger sett within the Order limits at the Burwell National Grid Substation Extension – Option 1, it would have been necessary to permanently exclude Badgers under licence from Natural England. However, due to this location not now being taken up further to the Applicant's change application being accepted, the sett will not be impacted.

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		To avoid impacts to badgers for the other setts within the Order limits Appendix 16C: Framework Construction Environmental Management Plan provides that: • Reasonable avoidance measures to avoid impact on badgers will be employed, including buffers of 30m around any identified badger setts. • Updated badger surveys will be undertaken before construction and mitigation requirements established, including obtaining any necessary licences. • Post-construction monitoring for badgers will be undertaken in the respective seasons, in years 1, 3, 5 and 10 post-construction.
	8.121 - Location of badger setts	The locations of Badger setts will be updated and corrected including the results of any recent observations and Sett 14 which is missing on Figure 2 Annex 8A. This will be reported at Deadline 4 in a confidential submission.
	8.122 - Badger Mitigation Strategy [APP-090] anticipates that six of these setts will be retained and avoided, with buffers of 30 or more metres set out in the Framework CEMP (page 16C-18, [APP-123]). However, the Works Plan (revision 1) [AS-004] no includes the 30m buffer zones. A drawing showing the 30m buffer zones on the Works Plan will be necessary.	Avoidance and retention of Badger setts, including the provision of 30m buffers from currently known setts, is secured in the Framework CEMP and therefore, does not need to be shown on the Works Plan. It is possible that the distribution of Badger may change before any construction activity starts and therefore, specific mitigation, the parameters for which are secured in the Framework CEMP, e.g. construction activity buffers, will be informed by pre-commencement surveys, as secured in the Framework CEMP.
	8.123 - Clarification of access for badgers into the solar parcels for foraging during construction.	Precautionary Site Maintenance Measures will be in place: Gaps in the external fencing of 100-150 mm will be maintained to allow access badgers, hares and other wildlife to access the construction site. Gaps will need to be created around the perimeter of the site with a gap provided at least every 200 m. This will be verified by the ECoW during the inspection of the ecological mitigation areas fencing and subsequently gaps will be checked during regular ecological monitoring.

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		The presence and location of gaps for mammals will be identified within an Ecological Inspection Proforma (EIP) prepared by the Ecologist once the gaps have been created and used as evidence of completion of work. The periodic inspection of the mammal gaps should be recorded daily within the ecologists EIP.
	8.124 - The Council believes further survey works is required to understand the territories of the local badger population. Bait marking surveys as part of pre-commencement works are recommended.	At least six separate Badger social groups present within or in the vicinity of the Order limits. Updated badger surveys and where necessary, bait marking surveys will be completed as appropriate to ensure no new badger setts are present within the site and to inform mitigation requirements at the pre-commencement stage as required within the Framework CEMP **[REP2-026]**. However, it should be noted that no interruption of Badger territories is predicted, given that boundary vegetation, e.g. hedgerows and woodlands, will be retained and gaps in security fencing will allow the continued movement of Badger across the solar array fields.
	Construction Environmental Management Plan 8.125 - Commitment to a regular reporting process from the Ecological Clerk of Works (ECoW) to the planning authorities. How regularly the ECoW will be present at the site during the construction phase or confirmed presence at key aspects of the construction work such as in the vicinity of Chippenham Fen or Worlington Heath. Details of monitoring of cabling works within close proximity to Havacre Meadows and Deal Nook CWS to ensure the works do not impact the habitats and habitats within other CWS.	**Construction Environmental Management Plan** At the outset of construction and every month thereafter during the construction phase the ECoW will inspect the site to ensure the compliance with the CEMP. This will include checking: • correct installation of fencing; • safeguarding of the ecological mitigation areas; • hedgerow and woodland condition; • implementation of precautionary site maintenance measures. However, when the works take place within close proximity of any CWS sites, the ECoW will inspect these areas every week. These will be able to be considered by the Ecology Advisory Group discussed in the OLEMP **[APP-108]**. Amphibians: In light of the results summarised below, the measures suggested here are not necessary

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	8.126 - which areas of vegetation will require precautionary clearance methods to avoid killing or injuring of wildlife such as amphibians and reptiles. It should be clear that maps will be produced, showing various ecological constraints to guide construction managers and operatives in the planning, phasing and carrying out of vegetation clearance.	There were no data search records of Great Crested Newt within 2 km of the Order limits and no Great Crested Newt recorded elsewhere within the Order limits. Water samples taken from those waterbodies within 250m of the Order limits, which had been assessed as being suitable for Great Crested Newt, were analysed for environmental DNA (eDNA); or field surveys were undertaken to determine the presence or absence of Great Crested New in these waterbodies. There was one positive eDNA result for Great Crested New, from a waterbody in Worlington approximately 150m north of Sunnica East Site B. There are also unverified reports from Worlington residents of Great Crested Newt in garden ponds. There is a population of Great Crested New north of Sunnica East Site B (confirmed through positive eDNA) and this population likely uses suitable waterbodies and any seasonally available standing water in the vicinity of Worlington. There are a number of ditches on the southern side of Worlington, which if wet during early spring could be used by breeding Great Crested Newt. At their closest these waterbodies are approximately 70m from the Order limits. There was an unverified licence return record of Great Crested Newt identified on MAGIC from the southern part of Chippenham Fen, indicating the presence in 2014 [National grid reference: TL 650 690]. This is at least 514 m from the Order limits, 572 m from the developable area and 584 m from the nearest PV solar panel, part of which is the wetland complex and SAC and Ramsar site and the latter half is across arable fields. Reptiles: Two species of reptile, Common Lizard Zootoca vivipara and Grass Snake, were recorded within the Sunnica West Site B boundary during field surveys. No reptiles recorded from field surveys in suitable areas of habitat within Sunnica West Site A, Sunnica East Site A or Sunnica East Site B. There is no suitable habitat for reptiles within the Grid Connection Routes A1 or B1. The habitat within the Burwell National Grid Substation Extension area for Option 1 and Option 2, Grid Connection Routes A2 and B2 is of limited value for reptiles but was not subject to field surveys. The habitat within these areas is a mixture of ditches, grassland and scrub and could be suitable for small, isolated populations of Grass Snake, Common Lizard and Slow Worm A*nguis fragili*s.
	8.127 - It is considered that a 1 metre depth for excavations necessitating escape routes / covers overnight seems deep; the	The Applicant disagrees with this suggestion, Appendix 16C: Framework Construction Environmental Management Plan says: Precautionary measures will be implemented to prevent trapping wildlife in construction excavations. All excavations deeper than 1m will be covered or fenced overnight, or where this is not practicable, a

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	Applicant has not demonstrated consideration of hedgehogs, reptiles, amphibians, small mammals in this decision.	means of escape will be fitted (e.g. battened soil slope or scaffold plank) to provide an escape route should any animals stray into the construction site and fall into an excavation;
8.129	No neutral effects are predicted during the operational phase as a result of the proposals	Noted
8.130	In both creating and managing high quality habitats, ongoing expert ecological land management advice will be needed. This may be different from the ecological expertise required to ensure compliance with protected species or the CEMP and ecological clerk of work requirements. The Draft Overarching National Policy Statement for Energy (EN-1) highlights that the decision-maker will need to consider what appropriate requirements should be attached to any consent in order to ensure that any mitigation or biodiversity net gain measures, if offered, are delivered and maintained. The Councils are concerned that Section 1.9 Roles & Responsibilities of the LEMP (APP-108) does not include the responsibilities for ongoing management during the operational stage of the development	The Ecology Advisory Group is included in the OLEMP [**APP-108**, Appendix 10l] and the detailed LEMP will provide further specificity.

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8.131 - 8.133	Given the extent of the DCO site, and the sensitivity of some of the habitats and species, monitoring surveys for the first ten years post construction, as outlined in section 1.8.29-34 of the LEMP (APP-108) is considered to be inadequate. The importance of ecological monitoring and use of the results to inform any changes needed in management is highlighted in the Draft National Planning Policy Statement for Renewable Energy Infrastructure EN-3. Habitat monitoring should continue for the full lifespan of the project, to effectively demonstrate the success of the mitigation/compensation and achievement of a Biodiversity Net Gain. Therefore, additional monitoring periods every five years should be added to the grassland, arable flora, woodland and hedgerow habitat monitoring. Undertaking periodic comprehensive species surveys for key species groups such as birds and invertebrates will also be essential both to demonstrate success and inform ongoing land management.	The monitoring of the habitat creation over the first ten years of operation will inform management and maintenance to ensure that they reach optimal condition. In some cases, e.g. Stone Curlew habitat, this will be reached in less than 10 years. Likewise for the monitoring Stone Curlew numbers, the results of the initial years of survey will inform a scientifically sound and proportional basis for monitoring. The Ecology Advisory Group will, over this decade, determine what if any further monitoring is necessary and how it will be funded. The requirements with respect to the implementation of biodiversity net gain as through the Environment Bill will provide guidance for the Scheme as to what monitoring is required and consideration will be given as to whether this should be adopted, should it be more than or otherwise different to what is proposed. A more scientific approach is needed to determine what monitoring intervals provide sound data for decision making and demonstrating biodiversity net gain. The Ecology Advisory Group will have an important role to play in deciding on such matters.

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8.134	The Councils consider that the findings of the monitoring should be reported based on the monitoring frequency so that, where the results from monitoring show that conservation aims and objectives of the LEMP are not being met, contingencies and/or remedial action can be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme.	The findings of the monitoring surveys will be reported and used to inform the management and maintenance of the biodiversity. Where the results from monitoring show that conservation aims and objectives of the LEMP are not being met, remedial measures will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The Ecology Advisory Group will have a key role in this adaptive management approach.
8.135	The Councils fully support the proposal that a long-term partnership with an ecological advisory group comprising ecologists from relevant NGOs, Natural England and local authorities should be secured, to scrutinise monitoring data and adapt habitat management / site conditions and working practices where necessary to meet the ambition for the Scheme, as set out in the ecology stakeholder members 'Ecological vision and ambitions for the Sunnica Energy Farm'. The Councils seek clarification of how this can be secured through the DCO process.	The Ecology Advisory Group is included in the OLEMP **[APP-108]** (as updated at Deadline 3) and the detailed LEMP will provide further specificity.

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8.130 to 8.135	**Negative impacts (Operational Phase)** The Councils are concerned that Section 1.9 Roles & Responsibilities of the LEMP [**APP-108**] does not include the responsibilities for ongoing management during the operational stage of the development. **Post-Construction Monitoring** The Councils fully support the proposal that a long-term partnership with an ecological advisory group comprising ecologists from relevant NGOs, Natural England and local authorities should be secured, to scrutinise monitoring data and adapt habitat management / site conditions and working practices where necessary to meet the ambition for the Scheme, as set out in the ecology stakeholder members 'Ecological vision and ambitions for the Sunnica Energy Farm'. The Councils seek clarification of how this can be secured through the DCO process.	The responsibilities for ongoing management during the operational stage of the development will be specified in the detailed LEMP. The Ecology Advisory Group is included in the OLEMP [**APP-108**, Appendix 10I] submitted at Deadline 3 and the detailed LEMP will provide further specificity.
8.136 to 8.145	**Fenland SAC and Chippenham Fen Ramsar Site**	**Fenland SAC and Chippenham Fen Ramsar Site** 8.136 The Stage 1 Screening for Likely Significant Effects completed for the scheme identified no likely significant effects on habitats or species within Chippenham Fen (component of Fenland SAC)

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		and Chippenham Fen Ramsar site during the operational phase (Page 8M-59, [**APP-092**]). However, it is considered that the Applicant has not provided sufficient evidence to demonstrate that there will be no physical displacement on designatory invertebrate species of Chippenham Fen Ramsar. The Applicant has provided a technical note at Deadline 2 reviewing the likelihood of the solar panels within the energy farm attracting aquatic insects from the Chippenham Fen (component of Fenland SAC) and Chippenham Fen Ramsar site. The overall conclusion is that some aquatic insects are attracted to solar panels although this is an unusual event dependent on the coincidence of a number of suitable conditions to trigger off such behaviour. The likelihood of aquatic insects from a fenland habitat being attracted to large open areas of shiny surfaces is low given that such species will preferentially use smaller shiny surfaces. Only a small proportion of Chippenham Fen and Snailwell Poor's Fen is aquatic habitat and most of those aquatic insect species of conservation value known from the site do not use open water areas for any of their behaviours. For those common species such as mayfly that may be present in the nature reserve, the factors of barriers (need to reach about 27 m to be able to see the solar panels which are at the closest 300 m away from nature reserve boundary) and prevailing wind (south-west), pose significant constraints, making such movement highly unlikely, i.e. no likely significant effects on habitats or species. The photograph illustrates the physical barrier in the background along the edge of the nature reserve. **View from within Chippenham Fen and Snailwell Poor's Fen looking to the south-west, November 2022**

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		 The technical note deals with concerns raised in the following paragraphs (8.137 – 8.144).
8.146 - 8.151	8.146 The Habitats Regulations Assessment – report to inform an Appropriate Assessment [APP-092] stage 1 screening identified the potential for likely significant effects during operation to Stone Curlew nesting outside of Breckland SPA (noise and visual disturbance). The Appropriate Assessment and the	

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	LEMP (APP-108) set out mitigation required. 8.147 The LEMP (APP-108) says that the Framework OEMP (APP-126) has requirements for toolbox talks for workers who need to be within 500m of Stone Curlew habitat but a review of the OEMP has found no reference to this mitigation measure. The requirement to reduce maintenance activities within 500m of Stone Curlew suitable nesting habitat immediately adjacent to the DCO site should equally apply. For clarity, the area of the scheme that would ordinarily be affected by this restriction should be indicated on a plan within the OEMP. Furthermore, it is unclear what actions toolbox talks would implement and how these would be reliably enforced so as to ensure that Stone Curlew are not unacceptably disturbed. Further clarification is required. 8.148 The Councils do not agree that because 'the areas embedded in the scheme design for offsetting impacts on Stone-curlew utilise the species' current and historical distribution across the Order limits', this replicates the conditions the	The OEMP includes reference to requirements for toolbox talks for workers who need to be within 500 m of Stone Curlew habitat and the requirement to reduce maintenance activities within 500m of Stone Curlew suitable nesting habitat immediately adjacent to the Order limits. The area of the Scheme that would be affected by these requirements will be indicated on a plan within the detailed OEMP. The actions toolbox talks would implement will also be specified in the detailed OEMP along with how these would be reliably enforced so as to ensure that Stone Curlew are not unacceptably disturbed. The nature of the use made by the on average 2-3 pairs of Stone Curlew within the Scheme boundary is dependent on the crop rotation within the area and the birds moving around to find suitable conditions as dictated by the distribution of crops, which is linked to other factors such as disturbance. This accounts in part for such low numbers of pairs. The mitigation strategy for Stone Curlew is to provide habitat, some of which is within areas known to be used by the birds, that would be available for use over a number of decades, akin to the optimal habitat that Stone Curlew would seek out. The

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	birds are already utilizing. The scheme proposals will introduce additional disturbance factors including additional public access routes, solar infrastructure including solar panels and solar stations and will also change the character of the land to 'open' grassland which may encourage informal access where it would have previously been discouraged because of the arable use. Increase in woodland in the vicinity to screen the visual effects of the solar infrastructure may also have an adverse effect on the effectiveness of the offsetting land. Whilst it is acknowledged that Stone Curlew have locally been recorded nesting or attempting to nest in areas closer to roads and paths than may be expected, it is considered that, in combination with the potential for disturbance from operational activities at the site, some areas chosen for compensation may not be suitable. 8.149 The Councils consider that the proposed monitoring of Stone Curlew is not adequate and believe that Stone Curlew plots and offsetting land should be monitored	strategy also takes into account such factors as disturbance, for example by siting Stone Curlew mitigation areas away from significant disturbance, e.g. busy roads. See also responses to 8.57 - 8.67 The monitoring of the Stone Curlew is based on best practice. The remit of the Ecology Advisory Group would include determining if the monitoring needed modifying in intensity, geographical coverage and, or duration. The remit of the Ecology Advisory Group includes responding to the monitoring of Stone Curlew and, where necessary, to determine, for example, changes to the habitat management, changes to the

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	annually throughout the lifetime of the project. 8.150 In addition, given the uncertainties about the effects on Stone Curlew, and the importance of the Stone Curlew population, it would be best practice to have some alternative options available, in case the habitats do not deliver the required conditions to support the baseline Stone Curlew population. This could be in the form of changes to the habitat management, changes to the operational activities on the site or alternative locations for habitat creation for Stone Curlew.	operational activities on the site or alternative locations for habitat creation for Stone Curlew. This is also provided for by enabling the specification to be developed further post consent.
8.151	**Badlingham Lane CWS** There is no information in relation to the future positive management of Badlingham Lane County Wildlife Site which lies partially within and partially adjacent to the DCO extents. Confirmation is required on who will be responsible for this site during operation of the solar farm.	The LEMP will specify the management regimes proposed for these two CWSs including who will be responsible for the management during the operation phase. The CEMP requires that existing designated sites within the Order land will be avoided and measures embedded within the Scheme design will ensure that they are not affected during construction e.g. through siting construction routes away from designated sites and buffer zones.
8.152 to 8.161	**Operational Phase Impacts - Negative**	See responses to: • Arable flora: 8.94 and the LEMP

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	• Arable Flora • Bats • Badger • Ecological Connectivity / Fragmentation	• Bats: 8.101 - 8.116 • Badger: 8.120 - 8.124 • Ecological connectivity/fragmentation is dealt with in the LEMP.
8.162 to 8.165	**Decommissioning Phase Impacts** There remains a lack of information on the long-term survival (i.e. beyond 40 years) of the habitats created as mitigation and compensation as required in the ES and HRA. Measures to secure the continuing nature conservation management all the mitigatory/compensatory habitats beyond 40 years should be a requirement.	Predicting with any certainty the decommissioning of the Scheme in the context of biodiversity is difficult given the changes that are likely to occur in legislation, policy and practice with respect to ecology, biodiversity and the environment more widely. The key to the Scheme's response to such changes is through the Ecology Advisory Group as an interactive and sustainable vehicle for dealing with biodiversity matters including management of mitigation habitats (there is no need for any compensation) and an ability to respond in its own terms of reference and membership as the times change. For example, should the Scheme achieve a given level of biodiversity or perform a critical ecological role such that the legislation current at a given point in time requires designation or protection, the Ecology Advisory Group would steer the Scheme through this purpose. At the end of the decommissioning process, the Scheme will no longer exist and the land would be returned to landowners (inclusive of habitats that had been created). At this point the Applicant would no longer be involved with the land and so as such, the proposed Requirement would not be appropriate and would not achieve the desired aims.
8.166 to 188	**Decommissioning Phase Impacts- Required Mitigation**: • Landscape and Ecology Management Plan (LEMP) • Grassland Creation • Management of Stone Curlew mitigation areas • ECO4 and ECO5	Paragraphs 8.166 – 8.187 are seeking detailed information about mitigation required for: • Landscape and Ecology Management Plan (LEMP). • Grassland Creation • Management of Stone Curlew mitigation areas • ECO4 and ECO5 • Grassland Management and Monitoring • Arable Flora • Stone Curlew Plots

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	• Grassland Management and Monitoring • Arable Flora • Stone Curlew Plots • Turtle Dove & Other Farmland Birds • Biodiversity Net Gain	• Turtle Dove & Other Farmland Birds The Local Authorities have provided in these paragraphs a valuable addition to detailed items currently under consideration with respect to mitigation for habitats and species to be included in the Outline LEMP and Framework CEMP. This is being informed by on-going meetings and consultations. The outcome will be documented in the SoCGs and will be provided in updates to documents including the Outline LEMP and Framework CEMP.
8.188 - 8.192	**Decommissioning Phase Impacts- Required Mitigation**: *- Biodiversity Net Gain*	See response to 8.166 – 8.192. An updated calculation of Biodiversity Net Gain is to be provided by the Applicant, using the latest Biodiversity Net Gain metric 3.1. This will be submitted to Examination in due course and will deal with aspects such as mitigation (no need to provide any compensation habitat) for protected species and the issue of the 40 year timespan, and enable scrutiny of the calculation process. A plan will be included in the detailed LEMP showing where the habitats that form the BNG assessment are located, distinguished from the areas of mitigation / offsetting habitat, whilst also showing how they form a coherent and linked network of functioning habitats across the landscape.
8.193, 8.198-8.203	**Requirements and Obligations – DCO [APP-019]** 8.193 The Councils request clarity or changes to the wording of the following from the draft Development Consent Order: 8.194 Table 3.3 of the CEMP states that a draft DCO will specify the requirement for updated ecology surveys to inform mitigation plans and protected species licenses, but	The Applicant considers that these points can be dealt with through updates to the LEMP/CEMP/DEMP where appropriate, not the DCO. The DCO itself provides for this by securing compliance with the CEMP, so no amends are required to the DCO.

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	this is not present in the Draft Development Consent Order.	
	8.198 Details of how the perimeter fence will provide adequate permeability for wildlife should be included within Section 11 of Schedule 2 of the DCO.	Details of fencing and ensuring adequate permeability for wildlife will be provided in the detailed LEMP.
	8.199 - 200 The Councils consider there should be a requirement for the applicant to access or delegate responsibility to a competent professional to ensure the success of: a) Stone Curlew mitigation and management measures; and b) grassland creation and management including conservation grazing and monitoring / adaptive management.	This detail will be incorporated in the stone curlew specification or LEMP, as appropriate, that are approved by the relevant local planning authority pursuant to the DCO Requirements. The Ecology Advisory Group as included within the LEMP will be constituted to include the necessary expertise to ensure the implementation the habitat and species mitigation and management including for Stone Curlew and grassland based on an adaptive management approach. If necessary, the Ecology Advisory Group would be able to call on expertise in specific areas. The Applicant will deal with the terms of reference and remit of the Ecology Advisory Group through the LEMP.
	The Councils propose this requirement to be delivered by inclusion within the legal requirements for the scheme (Development Consent Orders), which should also include a mechanism for ensuring appropriate remedial actions are taken, as identified by the land manager / advisory group as a result of monitoring surveys.	The LEMP will provide details of monitoring and the surveys needed to inform this, based on the principles set out in the OLEMP [**EN010106/APP/6.2**]. The Councils will have the opportunity to comment on the detailed LEMP at this stage.

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	8.201 The absence of a commitment to monitoring surveys within the draft DCO should be readdressed. The Councils have made recommendations (above) regarding the surveys they believe are necessary to ensure the long-term success of compensatory measures (which underpin a large portion of the impact assessment findings) as well as habitat enhancement measures.	The LEMP will provide details of pre-construction surveys to keep the baseline up to date and to inform mitigation requirements; and the DCO secured compliance with that LEMP. There are no protected species licenses required at this time. The Councils will have the opportunity to comment on the detailed LEMP at this stage. A significant proportion of the enhancement underpinning the biodiversity net gain will be advised by the implementation of biodiversity net gain as in the Environment Bill. The Ecology Advisory Group has the role of engaging with this process and at the appropriate time(s) responding to the policy and legislation in place at that time to ensure the protection and conservation of the Scheme or part(s) of the Scheme, e.g. retention of mitigation habitats created as part of the scheme (there is no necessity for compensation habitats).
	8.202 As stated within the Framework CEMP, the DCO should include a requirement to ensure that updated ecology surveys will be conducted prior to works starting, to inform mitigation requirements and protected species licenses. (Table 3-3 of the CEMP).	
	8.203 Chapter 3 Scheme Description, section 3.8, Decommissioning, Works Nos 6 and 10 will be 'left in situ as they could contain protected species and so licenses would be required for any changes'. The Councils believe this wording should be amended to make a firm commitment to the retention of mitigatory and compensatory	This commitment is secured through the Framework Decommissioning Environmental Management Plan **[REP2-028]**.

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	habitats created as part of the scheme.	
8.195 and 8.197	**Requirements and Obligations** 8.195 Part 4 and Part 6 of the DCO **[APP-019]** request more clarity to how these will be implemented: Part 4 – may use any watercourse for drainage of water in connection with operation or maintenance of the authorised development. − Part 6 – may fell any tree or shrub near any part of the authorised development (including those with TPOs). 8.197 Schedule 1 - Defines the areas for habitats as: Nos 6 A-D 'landscape and biodiversity enhancement measures'. However, these areas are also compensation habitats and therefore should be labelled as such within the DCO.	Article 14 (Discharge of water) is a model provision that allows the undertaker to discharge water into any watercourse, public sewer or drain in connection with the construction and maintenance of the authorised development with the approval of the owner of the watercourse, public sewer or drain and subject to certain other conditions, and its purpose is to establish a clear statutory authority for doing so. The reference from the model provisions to section 85 of the Water Resources Act 1991 has been deleted as this section has now been repealed. This has been replaced with a reference to the Environmental Permitting (England and Wales) Regulations 2016. The reference from the model provisions to the Homes and Communities Agency has been changed to Homes England, as this body replaced the Homes and Communities Agency in January 2018. References to the harbour authority have also been removed as they are not relevant to the Order. In relation to the Swaffham Internal Drainage Board, these provisions are disapplied as sufficiently detailed provision will be made by the protective provisions currently under negotiation with the Board (see Part 8 of Schedule 12). Article 36 is a model provision included in numerous made DCOs which provides that the undertaker may fell or lop or cut back the roots of any tree or shrub near any part of the authorised development in specific circumstances. Article 36(1) sets out the specific circumstances in which the Applicant is authorised to fell or lop any tree or shrub near any part of the authorised development, which is only to prevent it obstructing or interfering with the construction, maintenance or operation of the authorised development; constituting a danger for persons using the authorised development; or obstructing or interfering with the passage of construction vehicles. Article 37(3) provides that the consent under Article 37(1) should be treated as deemed consent under the relevant Tree Preservation Order. The Applicant confirms that it has submitted an arboricultural impact assessment at Deadline 3, which builds on the assessment set out in the Environmental Statement and explains the position as to whether trees subject to Tree Protection Orders are impacted by the authorised development. Additionally, a plan (and accompanying DCO schedule) has been produced to identify the trees subject to Tree Preservation Orders that the Applicant proposes to lop or fell that will be referred to in article 37 in the next version of the DCO.

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		The purpose of Schedule 1 is to the describe the development as consented by the Order. The Applicant will amend Schedule 1 in the updated draft DCO submitted to be submitted at Deadline 4 to include reference to landscaping and biodiversity mitigation and compensation measures.
8.196	**Requirements and Obligations** Development Consent Order [**APP-019**] Schedule 2 - '*No part of 1A, 1B, 2A 2B 3A 3B 6A 7A 7B 8A 8B 10 can start until offsetting provision for Stone Curlew is provided*'. Why No 4 is not included, as this is the grid connection through Stone Curlew habitats in Site East B. No 10 is the Stone Curlew habitat provision and therefore should not be included in this list.	With respect to Work No. 4, this was raised in the RRs and the Applicant's response was that the Requirement does not include Work No. 4 which covers the installation of the grid connection. A section of the grid connection passes through the Stone Curlew offsetting area in Sunnica East B and therefore, will be subject to temporary ground disturbance whilst the cables are laid. As a necessity, this will need to take place before the mitigation area is created, to avoid disturbing it once it is created. These works will not affect the establishment of nesting plots or the creation of grassland in ECO 1, 2 and 3 (as shown in Appendix 10I - Outline Landscape and Ecology Management Plan [**APP-108**] in advance of commencement of activities in Works Nos. 1A, 1B, 2A, 2B, 3A, 3B, 6A, 6B, 7A, 7B, 8A, 8B and 10. Any activities associated with Works No. 4 will be subject to the restrictions set out in Appendix 10I - Outline Landscape and Ecology Management Plan, avoiding disturbance to breeding Stone Curlew.

5 Chapter 9 Flood Risk

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Table Row 1	It is stated that an unspecified number of watercourses will be crossed by the cable route and/or other necessary infrastructure via either intrusive or non-intrusive means	Table 9-13 of ES Chapter 9 [**APP-041**] lists all the watercourse crossings and whether they are proposed to be completed using an intrusive or non-intrusive method. The crossing methodology chosen for specific crossings has taken into account the potential for environmental impact. Only three intrusive crossings are proposed, and these are on small watercourses such as drainage ditches. Within paragraph 9.7.23 of the ES [**APP-041**], intrusive watercourse crossing techniques will only be used for more minor watercourses / drains, some of which will be dry, ephemeral channels associated with field boundaries. The majority of the crossings are to be undertaken using non-intrusive Horizontal Directional Drilling which avoids impact to the bed and bank of the watercourse. These are listed in Table 9-13 of ES Chapter 9 [**APP-041**]. Mitigation measures are listed within the Framework Construction Environmental Management Plan [**REP2-026**], to be secured by requirement 14 of the DCO. This includes measures to protect watercourses during both non-intrusive and intrusive techniques. These crossings are also shown on Figure 3-23 [**APP-166**]. It is possible that some very small ephemeral drains that may be hidden by vegetation such as along hedgerows may not have been identified, but these will be very small and local features. As stated in paragraph 9.3.6 of the ES Chapter 9 [**APP-041**], watercourses listed in Table 9-13 [**APP-041**] may be crossed anywhere within the Order Limits along the cable corridor. Paragraph 9.3.6 of ES Chapter 9 [**APP-041**] states that "it is impractical to survey the entire length of all watercourses within this zone". However, the survey data that has been obtained is considered to be representative of each watercourse and sufficient for the prediction of effects. Site specific variances for final crossing locations will be surveyed as part of pre-works surveys and used to inform reinstatement (with enhancement where possible). With regards to culverts for access roads, only a slight change in location is anticipated and it is assumed that these may vary by 50 m upstream or downstream. As stated in the Framework CEMP Page 16C-27 [**REP2-026**] where watercourses are crossed within intrusive techniques the reinstatement of trenched channels is secured. This will aim to provide enhancement works on the channel between 5 m to 10 m upstream or downstream. Intrusive crossings will not result in a change in the flow or capacity of the channel during operation. Reinstatement of water crossings by intrusive techniques is secured within the

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		Framework CEMP document, Page 16C-27 [**REP2-026**]. Grid Connection Route A and B will be laid underneath the bed of the watercourse. The banks will be restored following the construction of a crossing if using intrusive methods, to ensure no adverse effects will occur following the works.
Table Row 2	Dependent on the final positioning of the panels and supporting infrastructure, access to existing surface water features for essential maintenance/remedial works may be restricted	As stated in the ES Chapter 9 Flood Risk, Drainage and Water Resources [**APP-041**], other than for access and drainage connections, the majority of construction works will take place within a 10m buffer from the edge of the typical channel / water's edge of watercourses. Solar Panels will be offset by a minimum of 10m from the water's edge/channel extent as stated in the ES Chapter. This is provided for in the Framework Construction Environmental Management Plan [**REP2-026**], which is secured through a requirement in the draft DCO [**REP2-042**]. Therefore, watercourse access for maintenance and inspection will not be impacted.
Table Row 3	It is stated that some of the supporting infrastructure may require the installation of septic tanks or similar rather than connecting into the foul sewer network to manage foul effluent, which has the potential to increase risk of pollution to watercourses if not properly installed and managed	During construction temporary welfare facilities will need to be provided. In the longer term, the two operational office / warehouse blocks would be situated on Sunnica East Site A and Sunnica East Site B for management and maintenance of the Scheme. These would contain welfare facilities for the anticipated up to 17 permanent members of staff on shift at a time (i.e. low volumes of foul drainage would be generated), as stated at paragraph 9.7.54 of ES Chapter 9 Flood Risk, Drainage and Water Resources [**APP-041**]. During both construction and operation, foul drainage will be self-contained, such as to a cess pit sealed tank, or "Portaloo" type portable toilets (in the case of construction works), with no discharges to ground or watercourses proposed during construction or operation. This is provided for as relevant in the Framework Construction Environmental Management Plan [**REP2-026**] and the Framework Operation Environmental Management Plan [**REP2-030**], both of which are secured through requirements in the draft DCO [**REP2-042**]. Within the Framework Construction Environmental Management Plan [**REP2-026**] it is stated that during construction any foul drainage from site welfare facilities will be appropriately managed and disposed of by an appropriate contractor to a suitably licensed facility. During operation the Framework Operation Environmental Management Plan [**REP2-030**] states that all wastewater from on-site welfare facilities would be managed by self-contained independent non-mains domestic storage and / or treatment system.
Table Row 4	The drainage strategy must be supported by infiltration testing where	Proposed infiltration rates are based on a desktop geological review included within ES Chapter 16B [**APP-122**], undertaken as part of the DCO submission, and with regard to Table 25.1 of the

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	infiltration based features are proposed as geological mapping is proposed on a national scale and unlikely to be an accurate representation of local conditions. Features designed to incorrect or assumed ground information may not function as expected. The assumed rate of 1 x 10^-5 m/s is relatively high and is unlikely to be representative of the geology locally. The proposed SuDS are not in accordance with the requested design parameters included in the Suffolk SuDS guidance document.	CIRIA SuDS Manual (C753) for estimated infiltration rates. Subject to detailed ground investigations, proposed to be undertaken under DCO Requirement 12, the proposed drainage strategy and infiltration rates use best engineering judgment to design the drainage strategy with a cautionary approach. It is considered there is sufficient area to allow for lower infiltration rates, once assessed post DCO consent. It is unclear which element of the Suffolk Design Guide has not been satisfied. Climate change allowances are based on the 2021 climate change allowances as published by the Environment Agency for peak river and peak rainfall allowances; the Scheme has been designed to the 1 in 100 year plus 40% climate change event, exceeding the design requirement of the Suffolk SuDS design guide. An FRA Addendum is being prepared to include climate change assessment for the 1 in 30 year scenario, as published in the revised PPG August 2022. The FRA Addendum is undergoing review with the EA. Refer to response to paragraphs 9.24 and 9.25 below for further detail on infiltration.
Table Row 5	All watercourses must be considered as part of the application, failure to consider seasonal or dry watercourses may result in increased flood risk.	All watercourses are considered to be included. Main River and ordinary watercourses were identified during site walkovers and are discussed within the ES Chapter 9 [**APP-041**] and Appendix C FRA [**AS-009** to **AS-010**]. No dry watercourses were identified for Sunnica East and West areas. The topographical survey has not identified further water features. This chapter also draws on ecological surveys undertaken between 2018 and 2021. The availability of data with which to define the receptor importance of these attributes is considered robust and therefore this approach is considered acceptable.
Table Row 6	Areas at medium to high risk of pluvial flooding should be fully considered, however isolated they are to ensure the proposal does not increase flood risk.	The Flood Risk Assessment and Drainage strategy [Parts 1 to 4 **AS-007** to **AS-010**] has reviewed pluvial flood risk to, and elsewhere from, the Order limits. The majority of the Order limits (PV areas, cable routes and environmental enhancement areas) will remain as existing greenfield runoff, with no changes to topography and existing runoff regimes. Swales will be introduced to capture focused overland flow paths between PV panels to reduce flood risk elsewhere and to provide betterment. BESS and compound areas will store excess peak runoff in swales and will also be detained in natural low spots within the Order limits to mitigate peak runoff from the Order limits and mimic the existing infiltration regime. The proposals ensure no increase in flood risk elsewhere in line with planning policy. These are set out in the Framework CEMP [**REP2-026**] secured through Requirement 14 of the DCO. This includes the following measures: ensure no

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		topsoil or other construction materials to be stored within the 1 in 100 year floodplain extent, connectivity to be maintained between the floodplain and the adjacent watercourses, the Scheme's drainage systems designed so there will be no increase in flood risk downstream during storms up to and including the 1 in 100 year annual probability design flood (including a 40% allowance for climate change). The drainage strategy for the operational site is secured through Requirement 12. The Drainage Strategy [**AS-010**] sets out the outline drainage strategy for the Scheme, with regards to surface water generated within the PV panel areas, compound and BESS areas. The components of the drainage strategy are designed to mimic the natural flow status in the area, so there would be no effect on flow pathways from the Scheme.
Table Row 7	Whilst measures to manage the quantity of surface water runoff have been proposed, there is less information on how the sustainable drainage features will address the other 3 pillars of SuDS; water quality, amenity and biodiversity. Furthermore, the allowance for climate change has recently been updated and 40% uplift to allow for increases in peak rainfall intensity may no longer be applicable. A 1.2m distance should be left between the base of an infiltration feature and maximum groundwater rather than 1.0m as stated. FEH rainfall data should be used in preference over FSR as it has been shown to be more conservative and thus has a greater safety factor associated with it.	The proposed drainage strategy [**AS-010**] as secured through Requirement 12 of the DCO includes the use of above ground SuDS techniques in the form of swales and existing natural low spots to treat and attenuate surface water runoff, and embodies 3 of the 4 pillars of SuDS (Quantity, Quality and Biodiversity). An FRA Addendum is being prepared to expand on the 4 pillars of SuDS, as outlined in the NPPG PPG updates in August 2022. As noted in Table Row 4 above, current climate change allowances have been used in the FRA and Drainage Strategy [**AS-007** to **AS-010**]. In addition, a Simple Index Approach assessment as per the method described in the best practice The SuDS Manual (CIRIA, 2015) has been undertaken to determine the number of treatment train components for different proposed land uses based on the water quality risk they present. This is presented in Annex F Drainage Technical Note [**AS-010**] and concludes that the level of mitigation being provided is sufficient. The comment on allowing 1.2m distance to groundwater is noted. A ground investigation will be secured as part of DCO requirement 12, post consent to confirm groundwater positions and monitoring to facilitate detailed design of SuDS features. SuDS features are proposed to be no deeper than 600mm taking into account potential shallow groundwater. The ground investigation methodology is secured with Requirement 14, the Framework CEMP [**REP2-026**], Table 3-10 Ground Conditions. This states that intrusive site investigation will provide geo-environmental data to evaluate soil and groundwater quality, and verify the conceptual site model. Verification of the conceptual site model will include the depth to groundwater within the areas investigated. FEH Rainfall data has been obtained and applied to the drainage strategy within the FRA Addendum report that is being compiled, with any mitigation applied to ensure flood risk is not

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		increased elsewhere. The FRA Addendum will be issued in due course and is currently being reviewed by the Environment Agency.
Table Row 8	Temporary changes in flood risk from changes in surface water runoff (e.g. exacerbation of localised flooding due to deposition of silt, sediment in drains, ditches). Changes in flood risk due to the construction of any part of the Scheme within an area at risk of flooding.	ES Chapter 9 [**APP-041**] includes a section titled 9.7 Embedded Design Mitigation. This includes the measures which will be included to avoid and minimise impacts and effects on the water environment. In paragraph 9.7.12 it is stated that "All reasonably practicable measures would be taken to prevent the deposition of fine sediment or other material in, and the pollution by sediment of, any existing watercourse, arising from construction activities. The measures would accord with the principles set out in industry guidelines including the CIRIA report 'C532: Control of water pollution from construction sites' (Ref 9-32) and CIRIA report 'C649 Control of water pollution from linear construction sites' (Ref 9-33). Measures may include use and maintenance of temporary lagoons, tanks, bunds and fabric silt fences or silt screens as well as consideration of the type of plant used". These measures are detailed within Table 3-4 of the Construction Environmental Management Plan [**REP2-026**] and secured through Requirement 14 of the DCO [**REP2-012**].
Paragraph 9.20, 9.21, 9.22 and 9.23	A surface water management plan (SWMP) has been undertaken in June 2019 for the Newmarket area, the findings of which should be incorporated into the design, such that the proposals do not adversely impact sensitive catchments.	Refer to Relevant Representation SCC-44 [**REP1-016**]. The Newmarket Surface Water Management Plan (SWMP) (BMT, June 2019) covers the area of Newmarket and includes the Newmarket Brook. Newmarket Brook flows northwards through Newmarket to the River Snail. Areas of the Scheme are located close to the River Snail, and the river is crossed non-intrusively by the cable route. The Scheme does not result in any flow changes within the river due to the cable crossing methods and securing greenfield runoff rates within the Drainage Strategy, in Annex F of the FRA [**AS-010**], as secured by Requirement 12, and as such there are no changes to propagate upstream to Newmarket, which is located approximately 2.5km south, and upstream from Sunnica West Site B. There is no impact from the SWMP to the site either.
Paragraph 9.24 and 9.25	The Councils expect infiltration testing to be undertaken at all sites to inform the Outline design, required to demonstrate that a surface water drainage strategy, compliant with National and Local Policy, Guidance	Proposed infiltration rates are based on the desktop geological assessment undertaken as part of the DCO submission, and Table 25.1 of the CIRIA SuDS Manual (C753). Subject to ground investigations, proposed to be undertaken within DCO Requirement 12, the proposed drainage strategy and infiltration rates use best engineering judgment to design a drainage strategy with a cautionary approach. It is considered there is sufficient space to allow for potentially lower infiltration rates, once assessed post DCO consent.

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	and Best Practice can be delivered within the Order Limits. The Councils await the results of infiltration testing from all proposed development sites, if there were to be a hearing on this matter then it would be expected that these will be made available by the applicant.	Refer to Table Row 4 above. Detailed ground investigation and infiltration testing locations to BRE Digest 365 and as agreed with the LLFA will be secured within Requirement 12 of the DCO, to inform the detailed design of the SuDS features. With regards 9.26 to 9.28, it is not currently proposed to discharge surface water runoff other than infiltration, based on the current desktop site investigation and estimated infiltration rates. Refer to Section 3.6 of the Drainage Strategy in Annex F of the FRA [**AS-010**], where pollution mitigation indices are discussed and confirm swales are suitable for the intended use of the Scheme. All treatment is via above ground SuDS with no proprietary treatments proposed. With regards the 4 pillars of SuDS, the FRA Addendum to be submitted to the EA and PINS includes details of the 4 Pillars of SuDS. However, the drainage proposals are considered to satisfy all 4 Pillars, as there is no below ground drainage proposed, for example.
Paragraph 9.35	At this time there is no demonstration of the potential to deliver legacy benefit, through a reduction of existing surface water flood risk or improvement of water quality. Any potential legacy benefit would require further assessment by multiple specialisms	The Drainage Strategy, Annex F of the FRA [**AS-010**] demonstrates no increase in long term flood risk elsewhere to all potential receptors. The drainage strategy provides a reduction in existing surface water risk to the existing regime, which currently has uncontrolled runoff from the DCO limits. There is no statutory requirement to reduce flood risk elsewhere, the Scheme provides betterment throughout its operational lifetime by using SuDS to reduce peak runoff rates overall from the Order limits, reducing surface water flood risk downstream. The Construction Environmental Management Plan [**REP2-026**] addresses surface water runoff and potential flood risk downstream during construction, once the method is confirmed for cable crossings. Methods for surface water flood risk mitigation during construction are set out within the CEMP and secured through requirement 14 in the DCO. Measures in the CEMP will be subject to local planning authority approval under requirement 14. For surface water drainage and flood risk management during construction, refer to Table 3-4 of the CEMP [**REP2-026**] which sets out the measures that may be incorporated to control surface water runoff and flood risk during construction. Select examples from Table 3-4 of the CEMP [**REP2-026**] are presented below: • Connectivity will be maintained between the floodplain and the adjacent watercourses, with no permanent changes in ground levels within the floodplain;

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		• Ensure no topsoil or other construction materials to be stored within the 1 in 100 year floodplain extent; • During the construction phase, the contractor will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. For example, works in the channel of any watercourse will be avoided or halted were there to be a significant risk of high flows or flooding; • The construction laydown area site office and supervisor will be notified of any potential flood occurring by use of the Floodline Warnings Direct or equivalent service; • The Scheme's drainage systems will be designed so that there will be no increases in flood risk downstream during storms up to and including the 1 in 100 (1%) annual probability design flood, with an allowance of 40% for climate change; and • SuDS features will be utilised to ensure the surface water drainage strategy adequately attenuates and treats runoff from the Sites, whilst minimising flood risk within the Sites and surrounding areas. Within paragraph 9.8.170 of the ES [**APP-041**] it is stated that the operational Scheme would result in reduced chemical loading of watercourses associated with the cessation of nitrate, pesticide, herbicide and insecticide applications, which would be beneficial.
Paragraph 9.42	Further clarification is required on the principles in place for temporary watercourse crossings, to facilitate construction haul roads etc. until such time the permanent culverts are constructed, if such temporary crossings are required	Paragraph 9.7.52 in the ES Chapter 9 [**APP-041**] states: "No realignment of the unnamed watercourses would be necessary." As set out within the Consents and Agreements Position Statement [**REP2-016**], Land Drainage Consent(s) under Section 23 of the Land Drainage Act 1991 (as amended) would be obtained for the design and construction of these watercourse crossings for the access roads, if those provisions are not disapplied by the DCO. Where those provisions are disapplied, watercourse crossings for the purposes of access (as against cable crossings) would be regulated in accordance with the terms of the protective provisions with the relevant drainage authority. There is the potential for these internal access roads to be moved at detailed design.
Paragraph 9.43	It must be demonstrated that areas designated for infiltration during operation can be protected during the construction phase to prevent the compaction of natural soils and/or contamination with material that could	Protection of SuDS feature locations during construction will be set out and captured within the Framework CEMP [**REP2-026**] as secured by Requirement 14 through the DCO. The construction of SuDS features would be implemented and then fenced off around access and compound areas to prevent being tracked and compacted. Consideration will be given to Chapter 29 (Landscape)

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	hinder the future infiltration potential of these soils. This would require sufficient space within the Order Limits to facilitate haul roads etc. If this is not possible, principles for remediation and post construction testing must be identified	and Chapter 31 (Construction) and of the CIRIA C753 SuDS Manual for soil compaction and mitigation practices.
Paragraph 9.44	As highlighted under Key Local Issues, there are existing surface water flooding issues at some limited locations within the Order Limits. During construction, sediment laden surface water runoff has the potential to increase surface water flood risk if it were to enter the existing highway drainage system. It must be demonstrated that sufficient mitigation can be delivered within the Order Limits	Refer to Table Row 8. Chapter 9 of the ES [**APP-041**] includes section 9.7 Embedded Design Mitigation. This includes the measures which will be included to avoid and minimise impacts and effects on the water environment. In paragraph 9.7.12 it is stated that "All reasonably practicable measures would be taken to prevent the deposition of fine sediment or other material in, and the pollution by sediment of, any existing watercourse, arising from construction activities. The measures would accord with the principles set out in industry guidelines including the CIRIA report 'C532: Control of water pollution from construction sites' and CIRIA report 'C649 Control of water pollution from linear construction sites' . Measures may include use and maintenance of temporary lagoons, tanks, bunds and fabric silt fences or silt screens as well as consideration of the type of plant used." These measures and others are detailed in the Framework CEMP [**REP2-026**] Table 3-4 Flood Risk, Drainage and Water Resources, and secured by Requirement 14 of the draft DCO [**REP2-012**].
Paragraph 9.45	The local highway authorities will not permit any discharge of construction surface water to the existing highway surface water system	There is no runoff proposed to any highway drainage infrastructure during construction. Refer to drainage strategy in Annex F of FRA [FRA Part 4 **AS-010**] for SuDS proposals that confirms all proposed drainage is via infiltration to ground, as existing.
Paragraph 9.46	At this time, the Councils have not been approached for discussions regarding operational drainage for any of the proposed development	We politely disagree. LLFAs and IDBs have been included within consultation beginning with an initial meeting in March 2021. Suffolk County Council agreed the SuDS approach during the meeting held on 17 March 2021. An email confirming receipt of the minutes was received 28 April 2021. The meeting was attended by LLFA and planning leads from West Suffolk Council, Cambridgeshire County Council and Suffolk County Council. All SuDS proposals for detailed design will be submitted to the relevant county authority for approval prior to the start of construction in accordance with Requirement 12 of the DCO.

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Paragraph 9.47	The Councils have not yet received sufficient information pertaining to the proposed detailed surface water drainage strategies for any of the sites that will remain throughout the operational phase	We politely disagree. LLFAs and IDBs have been included within consultation beginning with an initial meeting in March 2021. Suffolk County Council agreed the SuDS approach during the meeting held on 17 March 2021. An email confirming receipt of the minutes was received 28 April 2021. The drainage strategy [**AS-010**] has been submitted with the Flood Risk Assessment [**AS-007**] as Annex F. All SuDS proposals for detailed design will be submitted to the relevant county authority for approval prior to the start of construction in accordance with Requirement 12 of the DCO.
Paragraph 9.48	This scheme has the potential to deliver legacy benefit by reducing the existing surface water flood risk within the area. This would require the scheme to retain and discharge surface water generated by the development site through infiltration whilst also intercepting surface water flows and managing these flows (and putting them to beneficial use, for instance firefighting water or irrigation) using the scheme's surface water drainage system. This would require the scheme's surface water drainage system to be designed accordingly	The drainage strategy [**AS-010**] sets out the Applicant's proposals for the management of surface water drainage during the operation. It proposes to mimic the existing greenfield runoff regime with additional attenuation to take into account climate change which would decrease peak runoff rates leaving the Order limits in extreme events during operation. The detailed drainage design will be prepared substantially in accordance with the drainage strategy following the grant of development consent, if granted, and is required to be submitted for the approval of the relevant county authorities prior to the start of the works in accordance with Requirement 12 of the draft DCO. A fire strategy has been prepared as part of the development proposals. Fire water tanks are to be located at each BESS site, capable of retaining 242.5m^3 water per site. The tanks are to be filled with standard water, with no chemical additives. The surface water draining from the site is not proposed to be used to fill the firewater storage tanks as these waters would need settlement of any suspended solids, as happens naturally within the SuDS feature, prior to entering the tanks. Any settled solids may impair the use of the fire water distribution equipment.
Paragraph 9.50	The reinstatement of areas used during construction, particularly any borrow pits once backfilled, have the potential to increase greenfield runoff rates. No information has been provided to detail how this could be mitigated	It is currently not proposed to utilise borrow pits during the construction of the Scheme. No above ground SuDS features are currently proposed that would require fill for an embankment or other earth retaining feature.

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Paragraph 9.51	At this time there is no demonstration of the potential to deliver legacy benefit, through a reduction of existing surface water flood risk or improvement of water quality. Any potential legacy benefit would require further assessment by multiple specialisms	Refer to Drainage Strategy, Annex F of the FRA [Part 4 **AS-010**] Section 3.6 that demonstrates water quality has been considered within the SuDS assessment, in line with CIRIA SuDS Manual and the Simple Index approach. For the proposed Scheme, the majority of Scheme surface water runoff will be direct rainfall runoff from the PV panels with no increase in pollutants (no highway runoff, hydrocarbons or other introduced pollutant), therefore the Simple Index Approach is considered acceptable for this Scheme. Pollution control measures are in place to ensure spills / leaks are controlled through integral bunds for plant. Construction phase mitigation will be provided in the CEMP as a Requirement within the DCO. The addition of SuDS feature attenuation to take into account climate change would decrease peak runoff rates leaving the Order limits in extreme events during operation, giving legacy benefit downstream. These are secured with Requirement 12 of the DCO [**REP2-012**]. Where HDD, or other trenchless techniques, would not be used, a pre-works hydromorphological survey must be undertaken to record channel features and provide the baseline against which reinstatement will be provided. Reinstatement will aim to provide an improved channel form with enhancement works to be carried out (where relevant and appropriate to do so) between 5 and 10m upstream and downstream of the open trench. It is anticipated that enhancements will consist of soft engineering techniques and improvements to the riparian corridor to improve channel diversity and biodiversity. The WFD Mitigation Strategy will be secured through the Framework CEMP [**REP2-026**]. The WFD Assessment also takes into account any impact on improvement measures that the Environment Agency has already proposed for waterbodies that are not already at Good Ecological Status / Potential or better. It also considers where there are opportunities for environmental enhancement that could support improving water body status. The Scheme is committed to implementing enhancement of watercourses through a WFD Mitigation and Enhancement Plan, which is secured through the Framework CEMP [**REP2-026**].
Paragraph 9.62	The County Councils as LLFAs should discharge any requirements which concern surface water drainage. This is to reflect and protect its statutory duties as LLFA, and in recognition of the fact that SCC and CCC County	Yes, this is provided for in the draft DCO, please see requirement 12 which requires the approval of the relevant county authority of the details of the surface water drainage system before construction. We have not identified any appendix containing proposed alternative drafting for requirement 12 within the LIR or its appendices but would be content to consider any reasonable amendments proposed.

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	Council hold the technical expertise on this matter. The Councils acknowledge that flood/drainage matters must be considered on an integrated basis with other environmental topics and would fully expect to do so, in consultation with any other relevant discharging authorities for other matters. The proposed wording for a revised requirement will be included within an appendix.	

6 Chapter 10 Landscape

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10.78 to 10.81	**Methodology** Landscape and Visual Impact Assessment methodology. The Councils disagree with the method adopted by the Applicant to interpret the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition and the resulting methodology. Paragraphs 10.70 to 10.81 highlight concerns with the criteria and methodology for assessing susceptibility to change and sensitivity of landscape and visual receptors. ***10.79 Classification scale*** The LIR claims the classification scales are biased towards low (containing very low, but not very high) with the potential result that the assessed effects of the scheme are reduced. ***10.80 Susceptibility*** The LIR states that the criteria listed are not sufficient to assess landscape susceptibility. ***10.81 Sensitivity*** The LIR claims the method of determining sensitivity does not	The LVIA summarised in Chapter 10 of the Environmental Statement (ES) [**APP-042**] and supported by associated appendices and figures provides a detailed assessment of the likely significant effects on the landscape and people's views of the landscape. The LVIA was carried out by a team of landscape architects with extensive experience in assessing the effects of major projects and involved dialogue with host authorities on matters including the methodology and the criteria defined within it at various stages in preparation of the Application. The methodology presented in the Scoping Report [**APP-051**] was updated following receipt of comments in the Scoping Opinion [**APP-052**] and presented in the Preliminary Environmental Information Report (PEIR). It was then further reviewed and updated in response to comments made by LPAs through meetings and consultation on the PEIR. In line with GLVIA3, professional judgement has been used in applying these criteria and this is explained in the narrative for each receptor. **Classification scale** The criteria set out in Appendix 10C of the Environmental Statement [**APP-102**] for determining the sensitivity of landscape and visual receptors are well considered and impartial and have not been defined to make the effects of the Scheme look less severe. In applying these criteria, the Applicant has had in mind the reasonable worst-case and applied reasoned professional judgement, evidenced in the narrative, based on experience of the assessment of similar schemes. A four point scale was considered to provide more detail than a three point scale, to differentiate between the different effects. Landscape officers of host LPAs provided detailed feedback on the criteria proposed in the PEIR at the meeting held on 25 February 2021 and this was taken into account in the development of the ES. **Susceptibility** The criteria which guided judgements on the susceptibility of landscape receptors to change were changed between publication of the PEIR and submission of the Application. This was in response to further evaluation of the baseline and design parameters of the Scheme. Landscape officers of host LPAs provided detailed feedback on the criteria proposed in the PEIR at the

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	adequately allow for the combination of value and susceptibility.	meeting held on 25 February 2021. Concern was raised that these criteria needed to be more representative of the Scheme and the features and characteristics of the receiving landscape. The criteria for landscape susceptibility were therefore subsequently reviewed by the Applicant and revised taking account of this feedback. The criteria presented in Table 2-3 of Appendix 10C of the Environmental Statement [**APP-102**] make reference to features and characteristics of the landscape in the study area for the Scheme which are susceptible to the changes which would be brought about by the Scheme, such as patterns of landform and vegetation. **Sensitivity** The criteria which have guided conclusions on landscape sensitivity, by combining judgements on value and susceptibility, have also been refined by the Applicant between publication of the PEIR and the Environmental Statement. These changes were made to provide consistency with the changes made to value and susceptibility criteria and to draw clearer distinctions between categories. It is not clear exactly what the Councils consider the shortcomings in the combination of susceptibility and value. The Applicant considers the sensitivity criteria reflect a combination of value and susceptibility in line with GLVIA3. Further information on how the methodology has developed over time is set out in the technical note on this topic in Appendix L submitted at Deadline 2 [**REP2-038**].
10.82 to 10.83	**Methodology and baseline information** ***10.82 Visual baseline*** The information included in the visual baseline appendix goes beyond baseline description to include assessment, blurring the boundaries between baseline studies and assessment. ***10.83 Landscape baseline***	**Visual baseline** The only references to the Scheme within the visual baseline are explanation of where parcels are located in the view to assist with orientation. There is no 'assessment' relating to the effects of the Scheme within the baseline description. **Landscape baseline** The Application documents provide sufficient detail to make full and clear judgements on the likely landscape and visual effects of the Scheme. The LVIA reports on the landscape baseline in paragraphs 10.6.3 – 10.6.301 of Chapter 10 of the Environmental Statement (ES) [**APP-042**], Appendix 10D: Published Landscape Character Extracts [**APP-103**] and Appendix 10E: Local Landscape Character Areas [**APP-104**]. As the LIR states, they are also illustrated in Figure 10-3 Designations [**APP-193**].

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	The Councils disagree that sufficient information on the landscape has been collected and sufficiently conveyed.	Vegetation patterns are specifically described in paragraphs 10.6.59 – 10.6.77 within the LVIA in addition to numerous references in Appendix 10E [**APP-104**]. The Tree Constraints Report [**APP-101**], the ecological baseline including the Biodiversity Net Gain Assessment [**APP-259**], together with information from desk study, published studies and fieldwork provide sufficient information to inform these aspects of LVIA. A separate, detailed Arboricultural Impact Assessment has been submitted at Deadline 3 to provide further detail on impacts to trees and demonstrate the localised nature of impacts on vegetation. A TPO plan has also been produced to set out those such trees that are impacted by the Scheme.
10.85 and 10.88 to 10.90	**Landscape character assessment** ***10.85 Method for assessing landscape character*** The Councils disagree with the method adopted by the Applicant to assess the Scheme against published Landscape Character Areas (LCA) rather than interpret the information and use it to inform the description of the landscape affected by the proposals. The assessment of landscape character is mechanical in its approach and is overly complicated as a result. ***10.88 Drawing out key characteristics from the published assessments*** The LIR states that key characteristics from the published assessments have not been drawn out.	**Method for assessing landscape character** The assessment of landscape character is thorough and detailed, and considers effects on the landscape at a range of scales. This has assisted in drawing distinctions between effects on the wider landscape and more localised effects. The approach to the assessment of landscape character was set out in the PEIR consulted on with the relevant local planning authorities, and has not changed. The LIR implies that the published information has not been interpreted and used to inform the description of the landscape affected by the proposals. In fact, this has been undertaken via the Local Landscape Character Areas (LLCA) defined by the Applicant using the process described in paragraphs 10.86 – 10.87 of the LIR and with reference to published landscape character assessment. The baseline for the LLCA is clearly set out in Appendix 10E [**APP-104**] and assessed in Appendix 10G [**APP-106**]. The 44 identified LLCA provide full coverage of the study area at a consistent scale. **Drawing out key characteristics from the published assessments** Relevant key characteristics are drawn out in Chapter 10 of the Environmental Statement (ES) [**APP-042**] (for the National Character Areas (NCAs), Regional, County and Freckenham Parish Character Areas. **Definition of the LLCA**

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	10.89 Definition of the LLCA The LIR states that subtle changes in the landscape are not picked up in the LLCA, it is not clear how the boundaries have been drawn and it is not clear how they align with broader scale areas. ***10.90 Assessment at different scales*** The assessment of effects at the various different landscape scales leaves a confusing picture about the impacts of the Scheme	The methodology for identifying the LLCA is set out in paragraph 2.2.1 in Appendix 10E [**APP-104**]. The Applicant considers they are at a relevant scale and granularity and proportional for the purposes of the LVIA. The extent and boundaries of the LLCA have been discussed with relevant local planning authorities and amended based on feedback received. The LLCA and other published assessment areas are illustrated in Figures 10-5 – 10-10 [**APP-195** to **APP-200**]. A comparison between the different scales of published LCAs presented in these figures shows that the boundaries between these areas are not contiguous. The Applicant has defined LLCAs to draw appropriate distinctions between different areas at the local scale. However, as noted in *An Approach to Landscape Character Assessment*, 2014, Natural England the boundaries of LCAs are rarely precise and generally represent zones of transition and cannot therefore pick up every subtle change. A table is provided at the end of Appendix 10E of the Environmental Assessment [**APP-104**], which sets out the relationship between the LLCA defined by the Applicant and LCAs defined in published landscape character assessments. **Assessment at different scales** For a study area as broad as the Scheme, several sources of existing published information are available. These have been thoroughly reviewed and assessed in terms of the sensitivity to the Scheme and their relationship with one another to understand the effects of the Scheme at different scales. The assessment of landscape at different scales is in accordance with paragraph 5.50 of the GLVIA3 which states that *"the geographical area over which the landscape effects will be felt must also be considered... In general effects may have an influence at the following scales, although this will vary according to the nature of the project and not all may be relevant on every occasion:* *• at the site level, within the development site itself;* *• at the level of the immediate setting of the site;* *• at the scale of the landscape type or character area within which the proposal lies;* *• on a larger scale, influencing several landscape types or character areas."* The LVIA summarised in Chapter 10 of the ES [**APP-042**] has assessed the potential impacts on the landscape at scales ranging from national to local, using evidence from published landscape character assessments and LLCA defined by the Applicant. It also includes a separate

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		assessment of the impacts of each Site within the Scheme and an assessment of intra-project effects where relevant. This enables distinctions to be drawn regarding the geographical scale of likely significant effects in line with best practice. With regards to the overall picture of the impacts of the Scheme, the assessment identifies that significant intra-project residual effects of operation on the landscape would be focussed within the LT Rolling Estate Chalklands defined in the Suffolk Landscape Character Assessment. A finer grained assessment has determined that there would be variation in the extent of significant effects at the local level, focused within the Sites and some LLCAs defined by the Applicant. These effects would not be of such an extent that the Scheme would radically change the sense of place, the place attachment of the residents, and the recreational amenities of the affected villages and communities. The LVIA has not concluded that the Scheme would dominate and transform the local landscape to the extent that it would be altered beyond recognition.
10.91 to 10.94	**Visual assessments** The Councils raise concerns regarding the descriptions of existing views, that some viewpoints are difficult to locate, that some viewpoints have been omitted and specifically regarding the likely impacts on people using unclassified road U6006, particularly for equestrian use.	**Descriptions of existing views** The Council's comments in response to the PEIR were addressed, and do incorporate information on the nature, composition and characteristics of the existing view in accordance with GLVIA3. For example, the description for Viewpoint 1 in Appendix 10F **[APP-105]** states *"The view is across a rural landscape, with the River Lark flowing across the foreground of the view. The view demonstrates the flat landform across the fields to either side of the River Lark and the arable and pig farming land uses, with the latter resulting in a number of low pig pens within the fields. Lee Farm is partially screened by the intervening vegetation, whilst the taller silos are visible…"* **Viewpoint maps** The Councils correctly state that some viewpoints were not illustrated on the viewpoint maps. Figure 10-12 has been updated [**REP1-014**]. **Viewpoint orientation** The Applicant disagrees that the viewpoints are oriented in such a way that they do not convey the full extent of the effects. The viewpoints are intended to be representative of views of the relevant visual receptors and reflect a reasonable and robust picture of the proposals to enable full understanding of the likely effects. The Applicant has considered the visual amenity of visual

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		receptor groups at each location, including the wider visual context. The specific viewpoints identified by the Council are discussed below. VP13 – as stated in paragraph 10.6.323 of Chapter 10 of the Environmental Statement **[APP-042],** VP13 demonstrates that there are close range views from gaps in the roadside vegetation towards the location of Grid Connection Route A (to the north). Appendix 10F [**APP-105**], describing the baseline of VP 13, explains in paragraph 2.1.146 that *"the intervening field boundaries and roadside hedgerows truncate the extent of views across the wider landscape, such that fields within the Sunnica East Site A are not visible."* VP13A – is adjacent to VP13 and the same comments as above apply. VP33 – as shown in Figures 10.57A **[APP-217]** (existing baseline view) and Figures 10.99A-E **[APP-229]** (visualisations), the baseline view is at least 180 degrees and the visualisation view is 120 degrees, comprising almost all of the landscape west of La Hogue Road. The assessment in Appendix 10H **[APP-107]** refers to the proposed changes within W10 to W12, Cable Route B and intra project views of Sunnica West Site A and Cable Route B. VP33A – the viewpoint is intended to capture views north for residents of La Hogue Farm, as views south are represented by the nearby VP33. VP45 – the extent of the view shown on the baseline view at Figure 10.70A **[APP-219]** is panoramic. Appendix 10F **[APP-105]** describes the existing view in paragraphs 2.1.508 – 2.1.512 and notes that views across Sunnica West Site B are screened by intervening hedgerows, and likewise due to these features Sunnica West Site A, Sunnica East Site A and B and Cable Route A are not visible. VP46 - the extent of the view shown on the baseline view at Figure 10.71A **[APP-219]** extends from the woodland to the west to Snailwell Road and incorporates the approximate extend of Sunnica West Site B. Appendix 10F **[APP-105]** describes the existing view in paragraphs 2.1.516 – 2.1.518. VP51 – the extent of the view shown on the baseline view at Figure 10.76A **[APP-219]** extends from the B1102 to the southern side of the access road to the east. The baseline description in Appendix 10F **[APP-105]** describes the existing view in paragraphs 2.1.558 – 2.1.559 and states that '*Views to the west of the B1102 are truncated by the height of the roadside hedgerows*.

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		Views include the fields for Cable Route B, although all other parts of the Order limits are not visible, due to the distance and intervening features.' VP55 – the extent of the view is shown on the baseline view at Figure 10.80A **[APP-219]** with the approximate extent of Grid Connection Route B and the sub station illustrated. It should be noted that the viewpoint symbols on the visual receptor plans Figure 10-12 **[REP-014]** are intended to illustrate the location of the viewpoint and general direction of the view but are not intended to show the specific field of view for each viewpoint. **Omitted views** The selection of viewpoints has been refined throughout the project in response to desk study, fieldwork and consultation with landscape officers of host authorities. It is comprehensive and appropriate for informing judgements on likely significant effects. ***Fordham Road*** Fordham Road, which is a narrow lane with a national speed limit (60mph) lined in most places by dense vegetation including mature trees. The Applicant has selected two viewpoints on Fordham Road north of Snailwell: VP44 and VP46, which are considered reasonable to assess the effects for receptors on users of the road. ***Dane Hill Road*** There are four viewpoints from Dane Hill Road and to the south: VP34, VP35, VP35a and VP36. The LVIA has concluded that existing vegetation substantially screens views south from these locations and significant effects have only been identified at VP36 during construction. ***Ely and Ely Cathedral*** As noted in paragraph 10.4.2 of Chapter 10 of the Environmental Statement **[APP-042],** *"the LVIA study area covers the area which the Scheme may influence in a significant manner. It has been reviewed throughout the design process in response to the iterative design process."* This is in accordance with paragraph 5.2 of the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3), which advocates a proportionate approach to the assessment of landscape and visual effects. The study area has been informed by detailed desk study and fieldwork carried out between 2018 and submission of the DCO Application, including the preparation of Zones of Theoretical Visibility (ZTV) to test and refine the design. Based on

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		the distance between Ely Cathedral and the Scheme and the extent of intervening screening, it was not considered likely that impacts would result in significant effects and therefore views from Ely Cathedral were not assessed within Chapter 10 of the Environmental Statement. Further detail is provided in the Applicants response to ExQ1 Q1.7.1 [**REP2-038**]. ***North of Elms Road*** There are two viewpoints on Elms Road near Red Lodge: VP18 and VP19. VP27 represents views for residents in Red Lodge to the south of Red Lodge. A new development of houses has been constructed since the ES was completed. These properties lie to the north of the part of Elms Road within Red Lodge, bounded to the east by Newmarket Road and the west by the A11 trunk road, which limits the value attached to existing views to medium. The Applicant agrees that the tops of the west facing façades of some of these properties, which are located approximately 650m from the closest part of the site, are visible from within parcel E18 of Sunnica East Site B, where the substation and BESS will be located. A tall noise barrier lining the A11 screens views of the residents of these properties from ground level. Their susceptibility to change is high and overall, the sensitivity of these visual receptors is assessed as high. Construction activity is likely to be visible in the background, partially screened by existing vegetation to the west of the A11. The magnitude of impact will be low. This, assessed against the high sensitivity of the receptor, will result in minor adverse effects, which are not significant. On completion, the tops of the BESS and substation will be visible in the background against a backdrop of trees dividing parcels E14, E15, E16 and E18. The magnitude of impact will be low and the resulting effects minor adverse, which is not significant. By year 15 of operation, the substantial area of woodland proposed on the eastern side of parcel E18, will have established to screen the substation, BESS and permanent compound. The magnitude of impact will be very low, which would result in negligible adverse effects which are not significant. ***Equestrian users of U6006*** The methodology for the LVIA is set out in Appendix 10C of the Environmental Statement **[APP-102].** It explains the specific considerations given to equestrian users in the visual assessment. Paragraph 2.1.6 explains that *"as part of the fieldwork, visual analysis was also made in relation to horse riders on routes which they were considered to used, e.g. U6006 between Elms Road and Worlington. In order to note their views (given the additional height of horse riders) the assessors stood on a step ladder. The photography from these locations has been taken from a*

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		person's eye height as standing on the ground, to represent a pedestrian, as these were considered the more representative user of the routes." The LVIA has identified effects on users of U6006, including people riding horses for recreation, supported by four viewpoints: VP15, VP15a, VP15b and VP16. Significant effects are predicted in construction and year 1 of operation, reducing to not significant by year 15 of operation, when proposed planting and existing deciduous vegetation would be in leaf, as described in the assessment. The Applicant has submitted Zones of Theoretical Visibility (ZTV) for equestrian users in **REP1-017** to **REP1-022**.
10.95	**Visual assessments** Requests clarification regarding the height of security fencing around the site.	All fencing will be a maximum height of 2.5m. The LPAs will be able to ensure this through their approval of temporary fences pursuant to Requirement 11 of the DCO.
10.96 to 10.101	**Tree constraints** Raises concerns regarding the completeness of information provided on tree constraints and states that due to the lack of detail/specifics, missing information and errors as indicated above it is currently not possible to assess the local impact of this proposal on trees.	An Arboricultural Impact Assessment has been submitted at Deadline 03 to provide more information on this point. This identifies the extent of tree removals required to facilitate the Scheme. The framework CEMP [**REP2-026**] includes a commitment to undertake additional tree surveys for any unsurveyed trees impacted by the scheme and to submit an Arboricultural Report for approval in advance of commencement which will provide an updated impact assessment and detailed Arboricultural Method Statement.
10.108 to 10.111	**Construction phase impacts** The Councils disagree with the Applicants assessment that effects on Freckenham's Village Character Areas, Local Landscape Character Area (LLCA) 23a: Chippenham, LLCA 19a: Fordham Estate Sandlands, LLCA 17: Fordham Chalklands, LLCA	The Landscape and Visual Impact Assessment summarised in Chapter 10 of the Environmental Statement [**APP-042**] identifies temporary adverse effects of construction on Freckenham Village A: Fordham Road, Freckenham Village B: Southern Fringes, and Freckenham Village E: Ems Road. These effects are not considered significant. These effects relate principally to perception of construction activities outside of these areas. Neutral effects in construction are predicted for the remaining Freckenham Village character areas, LLCA 17, 19a, 22, 23a and 34 due to the intervening distance and features, which would not change the character of these areas.

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	34: Soham and LLCA 22: Chippenham Fen would not be neutral during construction.	Works No 9, which relates to works to existing streets to facilitate access to Work Nos. 1 to 8, would be localised to very small parts of existing roads for short periods and would not change the character of these areas. For example, the small area within the Order limits at the junction of the B1102 Mildenhall Road and Ferry Lane relates to the temporary removal of an existing field access gate to allow for the passage of the Abnormal Indivisible Load (AIL) during the construction period (see Figure 28 in the Framework Construction Traffic Management Plan and Travel Plan [**AS-278, AS-279**]). The small area within the Order limits at the junction of the B1102 The Street and Mildenhall Road relates to the tree on the traffic island and the overhang of the canopy for passage of HGVs during the construction period (see Figure 27 in the Framework Construction Traffic Management Plan and Travel Plan [**AS-278, AS-279**])
10.113	**Construction phase impacts** The Council disagrees with the Applicant's assessment of Option 2 of the proposed Burwell National Grid Substation Extension, which is predicted to result in moderate adverse effects during construction.	Paragraphs 10.6.294 to 10.6.300 of Chapter 10 of the Environmental Statement [**APP-042**] set out in detail the baseline characteristics and judgements on the value attached to the landscape, its susceptibility to change and sensitivity. This assessment concludes that for Option 2, the combination of the low value and the low susceptibility results in a low sensitivity to the landscape character, providing a clear rationale for these judgements. The resulting effects for all three options assessed in the construction phase are assessed as significant.
10.115	**Construction phase impacts** The Councils consider that the effects on LLCA 11: East Fen Chalklands should be considered major adverse during construction. The Applicant assessed these effects as moderate adverse.	With reference to Figure 10-10: Local Landscape Character Areas of the Environmental Statement [**APP-200**], LLCA 11: East Fen Chalklands is an extensive tract of predominantly arable land which extends west from Fordham Moor to Ferry Lane with Isleham to the north and Freckenham to the south. The B1104 runs north to south, approximately through the centre of the area and is elevated in places. This, together with development and vegetation along the road, limits intervisibility from west to east. The magnitude of impact was assessed against the criteria set out in Table 2-8 of Appendix 10C of the Environmental Statement [**APP-102**]. The impacts of construction would be localised to the eastern part of the area and as such the magnitude was assessed as medium. The resulting landscape effects of construction are considered significant when considered against the medium sensitivity of the LLCA. The Councils make comparisons against LLCA 21: Snailwell and LLCA 36: Burwell Fen, but in these cases the circumstances are quite different. The sensitivity of LLCA 21, which is a much smaller area, is considered high and more extensive intra-project cumulative effects have been identified relating to Sunnica West Site A, Sunnica West Site B and Cable Route B. In the case of LLCA 36, the sensitivity is also assessed as medium and intra-project cumulative effects are identified

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		relating to Cable Route B, which would affect two parts, and the Burwell National Grid Substation, resulting in significant effects during construction.
10.120 to 10.121	**Construction phase impacts – Sunnica West Site A** The Councils do not agree that the effects on the LLCA 26: The Limekilns and Gallops resulting from the proposals would be minor adverse during construction. The Councils consider that the geographical extent of the works at Sunnica West A combined with the strong visual connections to the Limekilns would result in significant adverse effects on the landscape character of LLCA 26. The Councils conclude that in their view the construction of Sunnica West A would have multiple significant adverse effects on the setting of Chippenham Park, the legibility of The Avenue and other historic features (woodland plantations) within the landscape as well as the legibility of the historic landscape itself, on visual receptors at The Limekilns and PROW (bridleway) 204/5, major adverse effects on views from La Hogue Road both looking south from the edge of Chippenham Park and when exiting La Hogue Farm.	Paragraph 8.4 of the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) states that "*in view of the clear differences between landscape effects and visual effects and the potential for them to be confused, it is good practice to report on them separately*." This is important to avoid conflating or double-counting effects. The assessment of landscape effects considers the potential impacts on the landscape as a resource in its own right, whilst the assessment of visual effects considers the impacts on people's views of the landscape. No part of the Scheme is proposed within LLCA 26: Limekilns, which lies adjacent to the southern and western boundaries of Sunnica West Site A. Any impacts relating to construction would therefore be indirect, relating to the setting. LLCA 26 is crossed by the busy A14 Trunk Road, which is a three-lane dual carriageway and railway lines leading east from Newmarket to Ipswich and north to Ely. These lines of severance in the landscape divide the gently sloping Limekilns Gallops to the south with the flat arable land within Sunnica West Site A to the north. The Snailwell Gallops are separated from Sunnica West Site A by dense belts of trees and shrubs. The assessment of landscape effects recognises that there will be some change to the setting of LLCA 26 during construction, but in the context of existing infrastructure. Its key characteristics will not change. Visual effects of construction relating to people using the Limekilns Gallops are assessed separately with reference to Viewpoint 38. Moderate adverse visual effects have been identified, which are considered significant. Impacts of construction on the legibility of the historic landscape are considered in Chapter 7 of the Environmental Statement [**APP-039**]. Impacts of construction on the character of Chippenham Park have been assessed with reference to LLCA 23b, which coincides with the tightly defined designation of the Registered Park and Garden. The tall boundary wall of the garden would limit impacts to the Avenue, which extends south of the walled garden through Sunnica West Site A. The condition and legibility of the Avenue north of the A14 has been substantially degraded by its wartime use as part of RAF Snailwell and subsequent development of dense scrub. The Sunnica West Site A and B Parameter Plan [**APP-136**] indicate that there will be localised impacts where the Avenue interests the northern side of Sunnica West Site A to facilitate construction of an access and Cable Route B. This will require some removal of existing

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		vegetation. Overall, the effect on the character of LLCA 23b during construction is assessed as minor adverse, which is not significant. VP33 represents views from La Hogue Road and visual effects of construction have been assessed as major adverse during construction, which is significant. Effects on the views of people using bridleway 204/5 are represented by viewpoints 39, 40, and 41 and are assessed as ranging from minor adverse to moderate adverse during construction. As noted on ASI1, this route is largely enclosed by dense vegetation. Significant effects are only identified for construction relating to viewpoint 41, which is located on higher ground close to Snailwell where there is a short section with more open views towards the site.
10.122	*Construction phase impacts – Sunnica East B, Within and Alongside the U6006* The Councils state that the current proposals are not entirely clear but it appears that they include the use of U6006 as an access to some of the solar plant parcels and as such would have a devastating effect on the character of the route, its amenity value, and its value as a well-connected wildlife corridor.	The route of U6006 will not be used for access during construction, operation or decommissioning. There will be a closure to facilitate construction of the cable crossing between parcels E12 and E13 for a maximum period of one week during construction (Sheet Number 60589004-TRM-TRC-017 in the Traffic Regulation Measures Plans - Road Closures - Part 3 [**REP2-009**]).
10.123	**Construction phase impacts – Sunnica East B, Within and Alongside the U6006** The Councils raise concerns that proposed roadworks along Elms Road would be likely to affect roadside vegetation and the width and kerb line of the road changing its rural character. The Councils disagree with the statement that construction	There will be some minor works to create temporary passing places for construction vehicles along the part of Elms Road within the Order limits within the existing roadside verges. Some localised vegetation removal may be required to facilitate construction of the site access between parcels E16 and E18. The character of the site access will be similar to accesses to farms across the surrounding area. No further works are proposed to Elms Road which would affect its character, such as kerbs or changes to surfacing. Any damage to verges as a consequence of construction access will be made good.

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	vehicles would reflect views of vehicles using the road at present and consider that the impact and resulting landscape and visual effects would be greater than assessed.	Elms Road crosses LLCA 13 Estate Sandland Mosaic. Landscape impacts during construction are assessed as high magnitude (the highest category) and the resulting effects are assessed as major adverse (the highest category). These effects are considered significant. The magnitude of impact relating to people travelling along Elms Road during construction is assessed as high (the highest category) and the resulting effects are assessed major adverse (the highest category), which is considered significant. The impact and resulting landscape and visual effects cannot be considered greater than assessed.
10.127 to 10.140	**Construction phase impacts – Sunnica East Site A** The Councils further consider that the following viewpoints should be judged as experiencing major adverse visual effects (rather than moderate adverse as stated in the ES).	***10.128 - VP2C: View west from Ferry Lane*** The significance of landscape and visual effects has been assessed by combining judgements on the sensitivity of receptors and the magnitude of impacts. This approach, which is in accordance with GLVIA3, is set out in Chapter 10 of the Environmental Statement [**APP-042**] and Appendix 10C: Landscape and Visual Impact Methodology [**APP-102**]. The Councils do not explain in the LIR whether their difference in professional opinion regarding the significance of the following effects relate to the sensitivity of receptors, the magnitude of impact, or both. These comments appear to also refer to the effectiveness of mitigation for residual effects and are addressed here for ease of reference. ***10.128 – VP2C: View west from Ferry Lane*** Oblique views are available towards the eastern part of Sunnica East Site A, particularly travelling south from West Row towards Freckenham. This is a narrow lane with a national speed limit (60mph) south of Hawthorn Farm. The northern end alternates between sections enclosed by hedgerow and more open sections where there is no roadside vegetation. The southern end is characterised by gappy hedgerows and mature trees, which screen and filter views to the west. The photographs in Figures 10.22C and 10.22D [**APP-215**] relate to VP2C, which is located approximately halfway along the Lane at a gap in the roadside vegetation. The sensitivity has been judged as high, taking account of residents of the small number of properties along the lane. Existing hedgerows have been taken account of in the LVIA and are now mapped on the Environmental Masterplan, which will be submitted at a future deadline. The Councils raise concerns that proposals for additional tree planting along Ferry Lane could obstruct long-

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		distance views to the Ark and St. Andre's Church in Isleham. As can be seen on the Landscape Masterplan for Sunnica East Site B in Figure 10-14b [**APP-210**], this is limited to the southern end adjacent to Parcels E08 and E10, where higher ground in the middle distance associated with Lee Farm already screens views towards these landmarks other than a very short section where the road rises over a bridge across a disused railway line (see VP12A below). ***10.129 – VP4: View south-east from The Ark*** The Councils consider that the sensitivity of people using the Ark church at Isleham should be considered high instead of medium as assessed by the Applicant. The Applicant disagrees with this judgement and has provided reasoned justification for this in Appendix 10F of the Environmental Statement [**APP-105**]. Paragraph 6.32 of GLVIA3 explains that susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of the occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations. The Ark is a venue for church services carried out within the building. Although there are views from windows on the eastern façade of the building towards the Scheme, these general relate to offices and ancillary uses, such as a kitchen. There is a community room at the northern end of the eastern side of the building. The external area adjacent is used for parking mini buses and houses a shipping container. People using this space are likely to be focused on the activities within the building. The land to the south of the church where VP4 is located, is a large surface level car park with limited amenity. People's views are therefore focused on their activity within the church and do not involve or depend upon appreciation of views of the landscape. The Applicant agrees with the Councils that the Ark is an important landmark in views across the landscape locally and is referred to where relevant in the assessment. ***10.130 – VP12A: View north-west from Ferry Lane*** The Councils disagree with the Applicant's assessment of the sensitivity of motorists on Ferry Lane, which has been judged as medium. The Applicant's assessment is driven by the medium value attached to views and medium susceptibility to change of people passing through the area on secondary roads. Whilst there are occasional, oblique glimpses north of the Ark and St. Andrew's Church in Isleham when travelling southwest along this narrow lane, views are likely focused on the road ahead. The Applicant considers that the medium sensitivity assigned to

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		these visual receptors, which is in line with the methodology set out in Appendix 10C [**APP-102**] is therefore justified. Regarding the magnitude of impacts during construction, these have been assessed as high but with reference to VP2C above relate to an elevated section of the route across a disused railway line. ***10.131 – VP13: View north from the B1102*** The Councils state that it would have been useful to have a view towards the north-east or east towards ECO3 and E12 in Sunnica East B from VP13. However, the Applicant considers this would be of limited value as roadside vegetation and trees on intervening field boundaries screens views in this direction from this location, which is a road with a national speed limit (60mph). ***10.132 – VP14: View south from B1102*** The Applicant has explained in Appendix 10F of the Environmental Statement [**APP-105**] how judgements on the value attached to views and the susceptibility of visual receptors to change have been assessed and combined to reach conclusions on sensitivity on a case-by-case basis for each receptor group, with reference to the criteria established. The Applicant does not agree that the sensitivity of receptors associated with this viewpoint should be assessed as having high sensitivity to the Scheme. There are features of value, such as the characteristic pine lines associated within this location on the edge of the Breckland. However, these views relate to people passing through the secondary roads or undesignated routes who are likely to have their attention on the road ahead and where views are relevant to the experience or activity but not central to it. The magnitude of impact in construction has been assessed as medium considering the oblique nature of views, intervening vegetation and distance from the operations. ***10.133 – VP16: View north-east from U6006*** The magnitude of impact during construction is assessed as high due to the close-range views of construction activity in Parcels 14, 15 and 16. The construction of the substation and BESS in E18 would be located in the background, beyond construction associated with solar panel arrays in the foreground and intervening vegetation in the middle ground. Effects during construction have been assessed as major adverse, which is the highest category [**APP-107**]. ***10.134 – VP20: View north from PRoW W257/003/0***

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		This view is representative of people walking west along the route, between Bridge End Road and Badlingham and is illustrated in Figure 10.43A and 10.43B [**APP-216**]. The Councils consider that the cumulative effects resulting from the construction of solar arrays at E20-E22 and disruption to the footpath during construction of the cable route, lead to major adverse visual effects. This concurs with the Applicant's assessment, which concluded that intra-project cumulative effects would be major adverse (significant) during construction in Appendix 10H [**APP-107**]. ***10.135 – VP22: View north-west from Worlington Road*** The Councils consider that close-range construction of the solar arrays in E24 and E25 would result in significant adverse visual effects when travelling towards Worlington. This concurs with the Applicant's assessment, which concluded that these effects as moderate adverse during construction, which is considered significant. Construction activity in E24 would be further beyond the construction activity in E25 and intervening vegetation on the boundary between the two parcels. ***10.136 – VP33: View north-west from La Hogue Farm*** The Councils consider that construction activity within W10 and W12 in combination with the construction of Cable Routes A and B also potentially visible at the same time would lead to major adverse visual effects. This concurs with the Applicant's assessment, which concluded that the intra-project cumulative effects of construction as major adverse (significant), as shown in Appendix 10H of the Environmental Statement [**APP-107**], stating that there would be an extensive change to the view. ***10.137 – VP45: View north-west from PROW (footpath) 204/1, north of Snailwell*** The Councils consider that the combination of construction activities for Sunnica West Site B and Cable Route B would result in major adverse effects on the views from this footpath. This concurs with the Applicant's assessment, which concluded that the intra-project cumulative effects of construction as major adverse (significant), as shown in Appendix 10H of the Environmental Statement [**APP-107**]. ***10.138 – VP38: View from the Limekilns*** This viewpoint was selected because it is located at a high point within the Limekilns Gallops, opposite an area of roadside parking and therefore represents the worst-case. The Applicant has

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		assessed the visual effects on users of the Limekilns Gallops as being moderate adverse, which is considered significant. The assessment has considered that construction activity would be visible across most of Sunnica West Site A, seen in the context of the A14/11 and railway line and that the activity would contrast with the settled and open character of the fields within the composition of the view. Construction activity would be visible in the background, below the skyline and against a backdrop of woodland with the closest activity approximately 1km from the viewpoint. The foreground and middle ground of the view would not be affected. ***10.139 – VP41: View south-east from PROW (bridleway) 204/5*** The Councils state that, during construction, machinery moving across W03, and between W03 and Chippenham Road would be visible, resulting in significant adverse visual effects. This concurs with the Applicant's assessment, which concluded that effects would be moderate adverse (significant) during construction, as shown in Appendix 10H of the Environmental Statement [**APP-107**]. ***10.140 – VP48: View south from Fordham House*** The Councils state that close-range views of excavation and implementation of Cable Route B would result in significant adverse visual effects. The Applicant has concluded that effects would be moderate adverse (significant) during construction, as set out in Appendix 10H of the Environmental Statement [**APP-107**], stating that construction would be seen in the context of vehicles [on the A142] and large-scale warehouses. These warehouses are associated with Turners Soham, to the south of the A142
10.144	*Construction phase impacts – moderate adverse landscape effects* The Councils consider that the accumulation of Minor and Moderate Adverse Effects around Worlington (LLCA 8), between Freckenham (LLCA 12) and Isleham (LLCA 10) and around Snailwell (LLCA 21), result overall in Major Adverse Effects, which	The Landscape and Visual Impact Assessment (LVIA) set out in Chapter 10 of the Environmental Statement (ES) [**APP-042**] has applied a hierarchical approach to the assessment of landscape effects, and has informed the design of the Scheme from the strategic scale masterplan to specific elements of the mitigation. The LVIA has therefore considered the accumulation of localised effects defined at the scale of the Site and Local Landscape character Areas (LLCA) across the wider landscape by also assessing the effects on Landscape Character Areas defined at various scales in published landscape character assessments [see **APP-103**]. The LLCA summary table in section 4 of Appendix 10E of the Environmental Statement sets out the relationships between the different levels of landscape receptor assessed [**APP-104**].

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	require changes in the proposals and more robust mitigation measures.	The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) states in paragraph 5.48 that "*the magnitude of landscape impacts should be assessed in terms of its size or scale, the geographical extent of the area influenced, and its duration and reversibility*". Regarding geographical scale, it states in paragraph 5.50 that "*the geographical area over which the landscape effects will be felt must also be considered. This is distinct from the size or scale of the effect – there may for example be moderate loss of landscape elements over a large geographical area, or a major addition affecting a very localised area. The extent of the effects will vary widely depending on the nature of the proposal and there can be no hard and fast rules about what categories to use. In general effects may have an influence at the following scales, although this will vary according to the nature of the project and not all may be relevant on every occasion:* • *at the site level, within the development site itself;* • *at the level of the immediate setting of the site;* • *at the scale of the landscape type or character area within which the proposal lies;* • *on a larger scale, influencing several landscape types or character areas*." Chapter 10 of the Environmental Statement [APP-042] sets out a separate assessment of the effects of the Scheme in relation to the following for construction, operation and decommissioning: • Sunnica East Site A • Sunnica East Site B • Sunnica West Site A • Sunnica West Site B • Cable Route A • Cable Route B • Burwell National Grid substation extension, Option 1 • Burwell National Grid substation extension, Option 2

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		The assessment has been broken down in this way to provide granularity to the assessment of landscape and visual effects across the Scheme. This assists in understanding which elements of the Scheme are likely to result in effects locally. This information has also been used to inform the design response. A separate assessment has then also been made of combined, intra-project landscape effects, which are the effects relating to each of the elements of the Scheme described above, considered together for relevant receptors. This has allowed conclusions to be drawn on the consequent accumulation of potential effects of the Scheme on the wider landscape and determine if further mitigation is necessary. This approach has allowed distinctions to be made regarding the size, scale and geographical extent of impacts, in line with best practice set out in section 5 of GLVIA3. It has informed the design of the Scheme, including decisions regarding the siting and layout of development to avoid and minimise impacts and the integration of embedded mitigation measures. As an example, moderate adverse (significant) effects have been identified for the Rolling Estate Chalklands landscape type (LT) defined in the Suffolk Landscape Character Assessment. With reference to Figure 10-7 [**APP-197**], this area coincides with all of Sunnica West Site A and B, parts of Sunnica East Site A and B and cable routes. It is an extensive area stretching north from Moulton in the south to Isleham in the north and east from Burwell to the edge of the Brecklands. A total of 24 of the LLCA defined by the Applicant fall at least in part within this LT. Neutral effects are predicted for nine of these LLCA during construction. Significant adverse effects of moderate or major significance have been identified for three LLCAs, helping to understand which parts of the LT would be most affected. The remaining 12 LLCAs would experience effects of negligible or minor significance. The setting of Worlington (LLCA 8) is defined by LLCA 13: Estate Sandlands Mosaic to the south and north west, LLCA 7: River Lark Valley to the north and LLCA 9: Six Acre Chalk Farmland to the east. This enables the focus variation of effects on the setting of the village to be understood. The effects of construction on LLCA 13 have been assessed by the Applicant as major adverse, which is significant. These changes will be focused in the southern part of LLCA 13 associated with Sunnica East Site B, with impacts also extending west across the area north of Freckenham Road associated with Cable Route A. Minor adverse effects are predicted for LLCA 9 with negligible adverse effects for LLCA 7. As explained above, the accumulation of these effects is considered in the assessment against LCAs in published studies. The Applicant does not

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		consider that these effects would alter the character of LLCA 8 beyond the minor adverse effects reported in the ES. The landscape between Freckenham (LLCA 12) and Isleham (LLCA 10) is defined by LLCA 11: East Fen Chalklands. The Applicant has assessed the intra project cumulative effects of LLCA 11 as moderate adverse during construction, which is significant. The Applicant does not consider that these effects would alter the character of LLCA 10 or LLCA 12 beyond the minor adverse effects reported in the ES. The landscape setting of Snailwell (LLCA 21) is principally defined by LLCA 24: Lowland Estate Chalkland to the north, LLCA 26: The Limekilns and Gallops to the south and LLCA 20: Snailwell Industrial Estate and 39: Burwell Wooded Chalkland to the west. LLCA 24, where the majority of construction activity would be focused, is predicted to experience major adverse intra project cumulative effects, which is significant. The effects on the remaining LLCAs in the immediate setting of Snailwell are predicted to be minor or negligible adverse, which is not significant. The Applicant does not consider that these effects would alter the character of LLCA 21 beyond the moderate adverse effects reported in the ES.
10.145	**Construction phase impacts – Minor adverse and negligible effects** The Councils do not agree with the assessment of effects of the scheme on the National Character Areas (NCA). The Councils consider that the ES has largely based its assessment on the land take of the scheme in relation to the size of the NCA, rather than establishing how representative the affected areas are for each NCA and what significance should be awarded to the loss of landscape features and change in landscape	As set out in paragraph 5.14 of GLVIA3, "*broad-scale assessments at national or regional level can be helpful in setting the landscape context, but are unlikely to be helpful on their own as the basis for LVIA – they may be too generalised to be appropriate for the particular purpose*". As set out in the Applicant's response to paragraph 10.144 of the LIR, the Landscape and Visual Impact Assessment (LVIA) set out in Chapter 10 of the Environmental Statement (ES) [**APP-042**] has applied a hierarchical approach to the assessment of landscape effects based on best practice. Paragraph 10.4.20 of Chapter 10 of the ES explains that the magnitude of impact has considered the size and scale, duration and reversibility of the impacts of the Scheme. The loss of landscape features and change in landscape character is therefore more appropriately considered at the local level with the definition of landscape receptors informed by assessments for high level geographies. At the National scale, Natural England has split the country into a series of 159 National Character Areas (NCA). These provide a broad assessment covering large swathes of landscape with broadly common characteristics.

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	character, taking into account their rarity within the NCA.	The NCA presented in Figure 10-5 [**APP-195**] show that the DCO Site lies at a point of transition in the landscape where three NCAs converge. As such, it shares some characteristics between different areas and some characteristics are weaker than parts more central to these NCAs. The majority of the Scheme is located within the northern part of NCA 87: East Anglian Chalk, which includes the higher ground around Newmarket and lower lying areas north of the A14. Sunnica East Site B lies on the southern periphery of NCA 85: The Brecks. A very small part of Sunnica East Site A falls within NCA 46: The Fens. The LVIA has not identified rare features of characteristics relating to these NCAs which would be lost within the study area which would be important at the scale of the NCAs. These areas extend well beyond the study area for the LVIA, which has concluded that there would not be significant effects on the landscape at this scale during construction, operation or decommissioning. These areas have been helpful in understanding the broader context and to inform the design response.
10.146	**Construction phase impacts – Minor adverse and negligible effects** The Councils do not agree with the assessment of effects of the scheme on the Landscape Areas of the East of England Framework, the landscape types of the Suffolk Landscape Character Assessment and the Landscape Character Types of the Norfolk and Suffolk Brecks Landscape Character Assessment.	As set out in the Applicant's response to paragraph 10.144 of the LIR, the Applicant has carried out a detailed and robust assessment of the likely impacts of construction on the landscape at different scales, including at the regional and county level. Paragraph 5.12 of GLVIA3, explains that "*Many parts of the UK are already covered by existing character assessments at different scales. There is a hierarchy of assessment, from broad-scale national or regional assessments, through to more detailed local authority assessments, to in some cases quite fine-grain local or community assessments*." Consequently, for a study area as broad as the Scheme, several sources of existing published information are available. These have been thoroughly reviewed and assessed in terms of the sensitivity to the Scheme and their relationship with one another to understand the effects of the Scheme at different levels. At the regional level, the East of England Landscape Framework has established broad landscape character types (LCT) at a consistent scale across the region. The areas defined by these types are large but also helpful in providing context. Significant, inter-project effects have been identified in relation to the Lowland Village Chalklands LCT during construction, but effects are predicted to be not significant in operation or decommissioning. Effects on all other LCTs defined at the regional scale are assessed as not significant in all phases. Information from published landscape character assessments at the county level available is variable but relevant in understanding the likely effects at a scale appropriate to the Scheme. As set out in Appendix 10D of the Environmental Statement [**APP-103**], the Suffolk Landscape

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		Character Assessment, published in 2010, describes the landscape typologies (LT) of Suffolk and extends partly into Cambridgeshire. The Cambridgeshire Landscape Guidelines, published in 1991, remain the only published landscape character assessment for the county. The Norfolk and Suffolk Brecks Landscape Character Assessment covers the north-eastern part of the study area including Sunnica East Site B. Effects within the areas defined in this study would be localised and not significant during construction at this scale.
10.147	*Construction phase impacts – Minor adverse and negligible effects* The Councils consider that impacts within villages during construction, which individually might be considered to be Minor Adverse, would become more significant in their accumulation and their impact on local tranquillity.	Local Landscape Character Areas (LLCA) have been defined by the Applicant to describe the character of the landscape at a local level, including individual settlements. This has informed the assessment of landscape effects of construction, including where relevant impacts on tranquillity. Changes to the Scheme through the iterative design process have moved built development away from settlement edges. Apart from some very localised activity, such as to temporarily remove a field gate at the junction of the B1102 Mildenhall Road and Ferry Lane, no physical construction works are proposed within settlements. As set out in section 2.6 of the Framework Construction Environmental Management Plan in appendix 16C of the ES [**APP-123**], the appointed contractor will ensure that the impacts from construction traffic on the local community (including local residents, businesses and users of the surrounding transport network) are minimised, where reasonably practicable, by implementing the measures set out in Appendix 13C: Framework CTMP and Travel Plan of the ES [**AS-278, AS-279**] and Chapter 13: Transport and Access of the Environmental Statement [**APP-045**]. The LVIA has concluded that effects on the character of settlements within the study area during construction would not be significant. The Applicant does not consider that there would be an accumulation of effects on the tranquillity of villages beyond the effects reported in the ES.
10.148	**Construction phase impacts – Minor adverse and negligible effects** Because of the visual connectivity with the DCO area the landscape character of LLCA 26, 'Limekilns and the Gallops', is considered by the Councils to be significantly affected by the	Paragraph 8.4 of the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) states that "*in view of the clear differences between landscape effects and visual effects and the potential for them to be confused, it is good practice to report on them separately*." This is important to avoid conflating or double-counting effects. The assessment of landscape effects considers the potential impacts on the landscape as a resource in its own right, whilst the assessment of visual effects considers the impacts on people's views of the landscape.

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	proposals. The sense of place would change from an equine landscape at the edge of a rural landscape to an equine landscape on the edge of an industrial construction site.	No part of the Scheme is proposed within LLCA 26: Limekilns, which lies adjacent to the southern and western boundaries of Sunnica West Site A. Any impacts relating to construction would therefore be indirect, relating to the setting. LLCA 26 is crossed by the busy A14 Trunk Road, which is a three-lane dual carriageway and railway lines leading east from Newmarket to Ipswich and north to Ely. These lines of severance in the landscape divide the gently sloping Limekilns Gallops to the south with the flat arable land within Sunnica West Site A to the north. The Snailwell Gallops are separated from Sunnica West Site A by dense belts of trees and shrubs. The assessment of landscape effects recognises that there will be some change to the setting of LLCA 26 during construction, but in the context of existing infrastructure and activity. Its key characteristics will not change. Visual effects of construction relating to people using the Limekilns Gallops are assessed separately with reference to Viewpoint 38. Moderate adverse visual effects have been identified, which are considered significant.
10.149	**Construction phase impacts – impact on trees and hedgerows** The extent of impacts on trees and hedges is unclear, and there is currently no tree survey as would normally be expected to inform a project such as this to demonstrate the effects of the proposals on trees.	An Arboricultural Impact Assessment (AIA) based on desk study and detailed tree survey information for those areas considered most likely to be subject to significant arboricultural impacts has been submitted at Deadline 03. This will identify the extent of tree removals required to facilitate the Scheme. Where trees are not subject to detailed survey they have been assessed via site walkover and/or desk study and have been assigned a likely quality category. A project commitment in the framework CEMP [**REP2-026**] will secure a tree survey for any areas not surveyed in detail and an Arboricultural Report which will include an updated impact assessment and detailed Arboricultural Method Statement to be submitted for approval in advance of commencement.
10.153	**Operational phase impacts – neutral** Neutral effects are predicted in LLCA 17 Fordham Chalklands, however, a short section of cable route traverses the LLCA at its southern end.	No above ground works are proposed within LLCA 17: Fordham Chalklands and it is expected that there would be no changes to the character of the area in operation. The cable route works, being a short period of trenching activities in the construction phase, are not expected to cause significant effects.
10.154	**Operational phase impacts – neutral** The assessments do not appear to have taken into account the proposed highway works at the junction of The	The small area within the Order limits at the junction of the B1102 The Street and Mildenhall Road relates to the tree on the traffic island and the overhang of the canopy for passage of HGVs during the construction period (see Figure 27 in the Framework Construction Traffic

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	Street and Mildenhall Road in Freckenham which potentially could have a residual effect into the long term if unsympathetic highway works are undertaken.	Management Plan and Travel Plan [**AS-278, AS-279**]). No permanent highway works are proposed and the character of Freckenham will not be affected.
10.155	**Operational phase impacts – significant adverse effects** The Councils consider that the changes to Sunnica West Site B and Burwell Option 2 will result in Major Adverse Effects that persist into the operational phase as the changes experienced would be long-term or permanent. The Applicant has assessed these effects as moderate Adverse.	The Applicant's assessment of the operational impacts of the Scheme on the site of Sunnica West Site B consider the introduction of solar farm development against the enhancement of the condition landscape elements through planting and extensive grassland creation. Overall, the magnitude of impact would remain high, but on balance the Applicant considers these effects to be moderate adverse in year 1 of operation, recognising that proposed tree and shrub planting would not have established, but that native grassland would. By year 15 of operation the proposed planting would have established to reinforce landscape integration and screening, further reducing the magnitude of impact to medium and the resulting effects to minor adverse. For Burwell Substation Option 2, the Applicant has assessed the significance of effect as moderate adverse in all scenarios, considering the magnitude of impact against the low sensitivity of the receptor. These effects are significant.
10.156	*Operational phase impacts – significant adverse effects* The Councils consider that the accumulation of Minor Adverse Effects around Worlington (LLCA 8), between Freckenham (LLCA 12) and Isleham (LLCA 10) and around Snailwell (LLCA 21), result overall in significant Adverse Effects, which require changes in the proposal and more robust mitigation measures.	As set out in the Applicant's response to paragraph 10.144 of the LIR, the Landscape and Visual Impact Assessment (LVIA) set out in Chapter 10 of the Environmental Statement (ES) [**APP-042**] has applied a hierarchical approach to the assessment of landscape effects, and has informed the design of the Scheme from the strategic scale masterplan to specific elements of the mitigation. The LVIA has therefore considered the effects on the character of individual settlements with reference to Local Landscape character Areas (LLCA) and the accumulation of localised effects defined at the scale of the Site and LLCA across the wider landscape by also assessing the effects on Landscape Character Areas defined at various scales in published landscape character assessments [see **APP-103**]. The LLCA summary table in section 4 of Appendix 10E of the Environmental Statement sets out the relationships between the different levels of landscape receptor assessed [**APP-104**].
10.157	*Operational phase impacts – significant adverse effects*	The Applicant notes that the Councils consider that the effects on the visual receptors associated with these viewpoints should be considered significant, although no detailed justification is provided for this. The Applicant draws attention to Appendix 10H of the Environmental Statement

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	The Councils consider that effects from viewpoints VP2A, VP2B, VP14, VP14A, VP21, VP24, VP25, VP37, VP40 would also likely be significant.	(ES) [**APP-107**]. This provides detail on the Applicant's assessment of the magnitude of impact and how this has been assessed against the sensitivity of visual receptor groups, including their activity or occupation and degree of exposure to views (e.g. static, direct, oblique, fleeting glimpses) to determine the likelihood of significant effects. In assessing the magnitude of impact, consideration has been given to the criteria set out in Appendix 10C of the ES [**APP-102**] and explained further in Chapter 10 of the ES [**APP-042**], which included the size and scale, duration and reversibility of impacts and the degree of contrast or integration of any new features or changes in the landscape. The Applicant has provided further explanation below regarding the viewpoints referred to by the Councils. *VP2B: View south-west from PRoW W-398/030/0* The Scheme would be located in the background, in the context of existing agricultural structures and activity. The majority of the view would not be affected and the foreground and middle ground, which are the focus of views along the River Lark, would be preserved. *VP2B: View south-west from Jude's Ferry* This viewpoint is located approximately 150m further east from VP2B along the River Lark. The focus of the view is heavily influenced by the River Lark and boats upon it in the foreground and these parts of the view would not be affected. From this location views towards the Scheme would be screened by existing and proposed intervening vegetation. *VP14: View south from the B1102 – Type 4 Visualisation Year 15* This viewpoint is located at a gap in the roadside hedgerow. The tops of solar panel arrays would be visible in the background below the wooded horizon and beyond the extensive new native grassland which would have established within ECO3 in year 1 of operation. The foreground and middle ground would not change and the focus of the view would remain along the road. On balance, these impacts would give rise to a medium magnitude of change and minor adverse effects on views at year 1 of operation. *VP14A: View south from residents adjacent to the B1102* Views south from ground level are largely screened or filtered by vegetation in gardens and on intervening boundaries lining the edges of paddocks and fields. The closest built elements of the Scheme visible would be solar panel arrays in parcel E12, approximately 500m away in the

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		background, beyond the extensive ECO3 which would enhance the condition of the grassland. The foreground and middle ground of the view would not be affected. *VP21: View east from Badlingham Road* The extent of change would be limited to the background, beyond existing intervening vegetation. Characteristics pine lines would remain visible on the skyline in the distance, contributing to a vegetated backdrop. The foreground and middle ground of the view would not change. *VP24: View south from Golf Links Road* The Applicant has assessed the magnitude of impact in year 1 of operation as medium and the resulting effects as moderate adverse (significant). Views from Golf Links Road, which has a national speed limit (60 mph) are limited to gaps in vegetation and are oblique and fleeting. By year 15 of operation, the belt of woodland proposed along the northern edge of parcels E30, E31 and E32 would have established to substantially screen views across the site, except for glimpses at field access points. *VP25: View south-west from Golf Links Road* This viewpoint coincides with a gap in the otherwise dense vegetation which lines the southern side of Golf Links Road. The Applicant has assessed the magnitude of impact in year 1 of operation as medium and the resulting effects as moderate adverse (significant). Views from Golf Links Road, which has a national speed limit (60 mph) are limited to gaps in vegetation and are oblique and fleeting. By year 15 of operation, the belt of woodland proposed along the northern edge of parcels E30, E31 and E32 would have established to substantially screen views across the site, except for glimpses at field access points. *VP37: View north from Newmarket Road* This viewpoint is located to the north of the A14 trunk road, close to a junction with the A11 trunk road to the north. It is a narrow lane, lined the for the majority of its length by a tall hedgerow, which provides fleeting, oblique views through occasional gaps east across parcel W15, approximately 100m at its closest point. The Applicant has assessed the magnitude of impact in year 1 of operation as low, reducing to very low by year 15 of operation, when planting on the southern edge of W15 would have established. The wooded backdrop formed by Halfmoon Plantation and The Willows would remain.

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		VP40: View north-east from PRoW (bridleway) 204/5, crossing the A14 The viewpoint is located on a bridge across the busy A14 trunk road, which accommodates bridleway 204/5 and therefore has tall parapets which disrupt views for most users. Views are available across the southern part of Sunnica West Site A, in the context of the busy road and for a short section of less than 50m. The magnitude of impact in year 1 of operation is assessed as medium, leading to minor adverse effects, accounting for these limitations.
10.160	*Operational phase impacts – significant adverse effects* The Councils do not agree that the landscape visual effects of the proposals at year 15 can be dismissed as insignificant. It is the Councils' view that there is not sufficient detailed information in relation to the mitigation proposals to be confident that the mitigation would be robust enough, deliverable and effective.	The ES is concerned with identifying and assessing the likely significant effects of the Scheme. The ES also identifies a range of effects which the Applicant has assessed as not significant in EIA terms. The term insignificant is not used. Applicant draws attention to Appendix 10H of the Environmental Assessment (ES) [**APP-107**]. This provides detail on the Applicant's assessment of the magnitude of impact and how this has been assessed against the sensitivity of visual receptor groups, including their activity or occupation and degree of exposure to views (e.g. static, direct, oblique, fleeting glimpses) to determine the likelihood of significant effects. In assessing the magnitude of impact, consideration has been given to the criteria set out in Appendix 10C of the ES [**APP-102**] and explained further in Chapter 10 of the ES [**APP-042**], which included the size and scale, duration and reversibility of impacts and the degree of contrast or integration of any new features or changes in the landscape. Appendix B of the Design and Access Statement (DAS) **[AS-312]** sets out the design principles for the Scheme which will inform the detailed design and which are secured by the DCO. This ensures that the parameters which have underpinned the assessments will be delivered and will be able to be checked by the Council in discharging the detailed design approval requirement. The planting proposed as mitigation is robust, deliverable and will be effective in reducing the operational landscape and visual effects of the Scheme. At this stage of the project, the design is outline. The Outline Landscape and Ecology Management Plan (OLEMP) **[N010106/APP/6.2]** submitted at Deadline 3 sets out the framework for achieving the vision of the masterplan, which unpins the green infrastructure proposals. Design principles set out section 1.7 describe how the mitigation will be designed and delivered in each part of the Scheme. This is underpinned by the Landscape Masterplan submitted with the Application (now superseded by the Environmental Masterplan (submitted with the updated OLEMP **[N010106/APP/6.2]** submitted at Deadline 3) which illustrates these proposals. This mitigation has been taken account of in assessing the likely residual effects of the Scheme at year 15 of operation. For example, in the case of landscape effects, the degree to which new and existing boundaries will be strengthened to

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		reinforce landscape patterns. For visual effects, this includes consideration of the effectiveness of planting in screening built elements of the Scheme and the degree to which the legibility of valued features, such as pine lines, will be retained. Further detail of these measures will be submitted with the detailed LEMPs, compliance with which is secured by DCO Requirement.
10.161	*Operational phase impacts – significant adverse effects* The Councils consider that the proposed development along with the limited mitigation proposals in the LEMP would lead to the widescale transformation of this rural landscape to a new solar landscape with a very different and potentially degraded landscape character of major adverse significance.	The Applicant has acknowledged in the Landscape and Visual Impact Assessment summarised in Chapter 10 of the ES [**APP-042**] that there will be effects on the character of the landscape at various scales due to the construction, operation and decommissioning of the Scheme. The Applicant does not however agree that the Scheme would lead to the widescale transformation of the rural landscape to a new solar landscape. The LVIA has assessed the size, scale and geographical extent of impacts, in line with best practice set out in section 5 of GLVIA3. It has informed the design of the Scheme, including decisions regarding the siting and layout of development to avoid and minimise impacts and the integration of embedded mitigation measures. The landscape within the DCO site and the study area for the LVIA is the product of centuries of human intervention. Whilst it includes some semi-natural features and characteristics, it cannot be described as a natural landscape. It is principally a landscape of intensive agricultural production, with other modern rural land uses, particularly the breeding and training of racehorses. Existing vegetation, particularly around settlements where a smaller field pattern has been retained, creates enclosure and this contributes to the sense of place. The Scheme has been designed to integrate with the landscape by siting solar panel arrays within existing fields. Over 50ha of additional woodland and 7.4km of hedgerow planting is proposed to further strengthen these patterns. The low maximum height of panels is similar or lower than the height of existing vegetation. The assessment of visual effects demonstrates that the Scheme will not dominate views and that features and characteristics that contribute to sense of place, such as skylines, landmarks and visual connections between settlements will be preserved. Localised impacts are predicted across Sunnica East Site A, Sunnica East Site B, Sunnica West Site A, Sunnica West Site B and Burwell National Grid Substation Extension during year 1 of operation. These impacts would lead to significant effects at the DCO Site level which, with the exception of Sunnica West Site A, would remain at year 15 of operation. Significant effects are also predicted within LLCA 11 East Fen Chalklands, LLCA 13 Estate Sandland Mosaic and LLCA 24 Lowland Estate Chalkland defined by the Applicant in year 1 of operation. These effects

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		would remain significant in year 15 of operation, apart from LLCA 11 East Fen Chalklands, which would reduce to not significant. These localised landscape effects would contribute to intra-project landscape effects at the scale of LCAs defined in published landscape character assessments. Significant effects would be limited to LT Rolling Estate Chalklands defined in the Suffolk Landscape Character Assessment in year 1 and year 15 of operation. Vegetation, particularly on field boundaries, watercourses and settlement edges in this predominantly flat landscape would limit the scale of effects and changes within the majority of LT Rolling Estate Chalklands would not be perceptible. Significant effects are also predicted within the Rural 2 North and Rural 3 East LCAs defined in the Freckenham Neighbourhood Plan. Effects on all other published LCAs are not considered significant during year 1 and year 15 of operation. As set out in the Outline Landscape and Ecology Management Plan (OLEMP), **[N010106/APP/6.2]** submitted at Deadline 3, the Applicant has devised a comprehensive scheme of planting to strengthen the existing vegetation patterns across the site. This will reinforce and enhance the green infrastructure network, contributing for example to habitat connectivity, recreation and amenity and flood attenuation. The Scheme will deliver over 50 ha of new woodland, 7.4km of new and enhanced hedgerows and 819 ha of new native grassland. Appendix B of the Design and Access Statement (DAS) **[AS-312]** sets out the design principles for the Scheme which will inform the detailed design, secured by DCO Requirement.
10.162 to 10.164	*Operational phase impacts – significant adverse effects* The Councils consider that the setting of the Ark at Isleham (VP4) with its extensive open views of the countryside is an integral part of the experience of attending worship and disagree with the assessment of visual effects.	The Councils consider that the sensitivity of people using the Ark church at Isleham should be considered high instead of medium as assessed by the Applicant. The Applicant disagrees with this judgement and has provided reasoned justification for this in Appendix 10F of the Environmental Statement (ES) [**APP-105**]. Paragraph 6.32 of GLVIA3 explains that susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of the occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations. The Ark is a venue for church services carried out within the building. Although there are views from windows on the eastern façade of the building towards the Scheme, these general relate to offices and ancillary uses, such as a kitchen. There is a community room at the northern end of the eastern side of the building. The external area adjacent is used for parking mini buses and houses a shipping container. People using this

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		space are likely to be focused on the activities within the building. The land to the south of the church where VP4 is located, is a large surface level car park with limited amenity. People's views are therefore focused on their activity within the church and do not involve or depend upon appreciation of views of the landscape. The Applicant agrees with the Councils that the Ark is an important landmark in views across the landscape locally and is referred to where relevant in the assessment. An Equality Impact Assessment **[EN010106/APP/8.45]** has been undertaken for the Scheme and submitted at Deadline 3, which assess the overall impact of the Scheme on protected characteristics. Negative impacts relating to potential loss of business and employment through land acquisition, increase noise levels and closure of PRoW were identified. However, the Scheme will provide positive impacts resulting in benefits that can be shared by groups with protected characteristics. With reference to Appendix 10H of the ES [**APP-107**], the Applicant has assessed the magnitude of impact on views of visitors to the Ark as high in year 1 of operation. By year 15 of operation, planting along the eastern edges of parcel E05 would have established. This would screen the built elements of the Scheme but would also reduce the openness of the views to the east across the middle ground, with the magnitude of impact reduce to medium. The wooded skyline would remain and distant landmarks, such as St. Mary's Church Mildenhall and St. Andrew's Church Freckenham would not be affected.
10.165 to 10.166	**Operational phase impacts – significant adverse effects** The Councils raise various concerns regarding the truncation of open views and loss of views of landmarks.	The Applicant has avoided or minimised the truncation of open views and the loss of landmarks within views through the iterative process of design, with reference to the Landscape and Visual Impact Assessment summarised in Chapter 10 of the ES [**APP-042**]. For example, views towards the St. Andrew's Church and the Ark in Isleham travelling west from Worlington on Beck Road have been preserved, as shown in the photomontages for viewpoint 11, presented in Figure 10-91 [**APP-221**]. This will be achieved by setting the solar panels approximately 100m away from the edge of the road, with native grassland and woodland to assist with screening.
10.167	**Operational phase impacts – significant adverse effects** The Councils consider that significant change would also be experienced from Golf Links Road (VP 24, 25 and photomontage 25) due to oblique,	The significance of effects considers the sensitivity of receptors and the magnitude of impact together. The Applicant has assessed the magnitude of impact in year 1 of operation as medium and the resulting effects as moderate adverse (significant). Views from Golf Links Road, which is a narrow lane with a national speed limit (60 mph), are limited to occasional narrow gaps in vegetation and are oblique and fleeting. By year 15 of operation, the belt of woodland proposed along the northern edge of parcels E30, E31 and E32 would have established to substantially screen views across the site, except for glimpses at field access points. The nature of this narrow

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	glimpsed views through gateways, entrances and during the winter, which would continue to give views across this vast area into year 15 and beyond which would continue to harm the perception of the landscape in this area.	lane means that people would need to specifically stop at field entrances to experience views at year 15 of operation and beyond and this has been considered in drawing conclusions on the likely magnitude of visual impact and the significance of resulting effects.
10.168	**Operational phase impacts – significant adverse effects** The Councils disagree that the level of planting proposed adjacent to Elms Road, approximately 10m (APP-108 Annex B Fig 12) would be sufficient to provide good screening including in the winter. However, the Councils consider that with additional and substantial woodland screening, including to the west of E18, it should be possible to effectively screen the proposed BESS and substation development.	Planting proposed to the southern side of parcels E16 and E18 and the northern side of E19 and E20 would reinforce the existing hedgerows which line the narrow lane of Elms Road. A 10m depth of planting is a well-established parameter for visual screening, being the distance stated for a tall screen in the now withdrawn Standards for Highways HA 56/92 new roads planting, vegetation and soils. The specification for planting will be developed at the detailed design stage, but the woodland proposed will comprise a mix of tree, shrub and understorey species to create a dense and effective screen from ground level.
10.169 and 10.170	**Operational phase impacts – significant adverse effects** The Councils consider that the visibility of the BESS at Lee Farm E33 has not been fully considered from the viewpoints on the edge of Isleham (VP3).	The visibility of the proposed BESS within parcel E33 of Sunnica East Site from Isleham has been considered in the Landscape and Visual Impact Assessment (LVIA) summarised in Chapter 10 of the ES [**APP-042**]. Viewpoint 3 is located on East Fen Road, to the east of the village. The BESS would lie approximately 1.4km to the south east of the viewpoint, beyond Lee Brook. It would be substantially screened by the vegetation on the western side of Lee Farm and the bunds which enclose the reservoirs on the eastern side of the farm complex.
10.171	*Operational phase impacts – significant adverse effects*	Section 10.7.4 of Chapter 10 of the ES [**APP-042**] refers to Outline Landscape and Ecology Management Plan (OLEMP) **[N010106/APP/6.2]** submitted at Deadline 3. This explains in

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	The Councils have noted that the (section 10.7.4 b APP-042) suggests that the tonal rendering of shades of the BESS is secured via the OEMP but that this requirement is not included in the OEMP and this is possibly not the most obvious place to secure this. The Councils have suggested that an Environmental Colour Assessment should be undertaken prior to or as part of the detailed design.	paragraph 1.6.34 (b) that "*the selection of finishes for the infrastructure would be informed by the tonal colours of the landscape to minimise the visual impact of the Scheme*". Compliance with the commitments in the OLEMP (to be delivered through the detailed LEMPs) is secured by Requirement 8 of the draft DCO. Furthermore, it is noted that detailed design approval of the BESS will be approved by the LPAs pursuant to Requirement 6 of the DCO.
10.173	**Operational phase impacts – significant adverse effects** It is not clear what distance the offset from pine lines would be and therefore whether it would be sufficient to ensure that landscape features remain present and legible in the landscape.	The Heritage Lottery funded Landscape Partnership "Breaking New Ground" describes pine lines as "*the most familiar and iconic feature of the Brecks landscape. They comprise long, straight lines of Scots pines, marching across the landscape and silhouetted against the sky, sometimes growing tall and straight but more often contorted into dramatic patterns*." They are thought to have been established approximately 200 years ago as hedgerows, which have grown out into rows of trees through neglect of management. The Applicant understands and has considered the importance of retaining the legibility of pine lines in the design of the Scheme. These pine lines comprise mature trees which typically range from 10m-25m in height. Therefore, solar panel arrays (maximum 2.5m high), solar stations (maximum 3.5m high) and BESS (maximum 6m high) would appear substantially below the canopy of pine lines in views from ground level. This would depend on proximity and elevation relative to the site. The offset distance from pine lines will vary depending on several factors, including the location in relation to solar panel arrays (noting that this is limited by the limits of deviation in the Works Plans), the extent of the root protection area, the requirement of land for cabling and access.
10.174	**Operational phase impacts – significant adverse effects** This paragraph relates to the offsets proposed from Lee Brook. The	Lee Brook flows north through or close to parts of Sunnica East Site A from Beck Road to the River Lark south west of the settlement of West Row. For the majority if its length it is set within open grassland. The closest part of the brook lies just north of Beck Road, where it flows along the eastern edge of parcel E05 for approximately 260m. This part of the brook is straight. The panels within the rest of E05 to the north are at least 65m from the brook with approximately

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	Councils consider that the proposals should be offset from the Lee Brook and landscape planting should be undertaken to ensure that the Lee Brook remains legible in the landscape through the DCO site, and the solar panels and solar stations are screened from the west including from the River Lark footpath. Planting along the Lee Brook should be designed to enhance the river habitat as part of a river restoration scheme. The Councils consider that the visual effects on people walking along the River Lark footpath (VP1) would be more significant than predicted at year 15 of operation.	170m separating panels in E05 and E03 on the eastern side of the brook. Panels within the northern part of E03 are 20m of the brook at the closest point, separated by wet grassland. Parcel E01 is set back further, approximately 40m at its closest point by wet and native grassland. Flood attenuation is a constraint to the design in this location. Further consideration will be given to the possibility of introducing further variety in vegetation patterns along the brook that could also assist in screening or filtering views of the Scheme from the west, including from the River Lark – this would be confirmed through the detailed LEMP. The Applicant has assessed the impacts of people walking along the River Lark with reference to VP1, VP2a and VP2b. Views south from this footpath are largely screened by intervening woodland and the backs of the river. VP1 is located on a more open and remote section of the path approximately 3.3km walk from the centre of the Isleham. The Applicant has assessed that the magnitude of impact on views would have reduced to low by year 15 of operation, because planting would have established to assimilate the development in E01 and E03 into the view. Some taller elements would remain visible against the existing wooded backdrop.
10.175	**Operational phase impacts – significant adverse effects** The Councils seek clarity on how the appearance of the U6006 route would have changed as a result of the proposed construction; the works plans show that Works No 1Biii, 4, 6B, 9 and 10 may have been implemented along the various sections, all of which have the capacity to change the character of the green route.	The unclassified road U6006 runs through Sunnica East Site B between the southern edge of Worlington in the north and Elms Road in the south. The Outline Landscape and Ecology Management Plan (OLEMP) **[N010106/APP/6.2]** submitted at Deadline 3, explains how impacts on U6006 will be addressed, including with reference to the associated County Wildlife Site (CWS). The Landscape Masterplan illustrated in Figure 3 and the Illustrated Cross Section in Figure 10 of the OLEMP provide information on the proposed mitigation. The U6006 will be crossed by the Applicant to provide access between parcels E12 and E13.
10.176	**Operational phase impacts – significant adverse effects**	Sunnica West Site A lies within LLCA 24: Lowland Estate Chalkland, defined by the Applicant. This area is described as "*arable farmland with woodland and plantations stretching to the north*

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	The Councils consider that extensive mitigatory screen planting relating to Sunnica West A is inappropriate within this open landscape of historic importance, the adverse visual effects would remain significant, even in year 15.	*of the A14 and south of Chippenham Park*" in Appendix 10E of the Environmental Statement [**APP-104**]. Sunnica West Site A is a working landscape. The field pattern within Sunnica West Site A is predominantly the same as shown on the 1888-1913 OS map. Key changes include the introduction of the Snailwell Gallops to the south-west of the site, which occupy land which was formerly RAF Snailwell. This airfield was built in 1940 and was operational until 1946. It comprised three grass runways and associated taxiways, hardstandings and buildings. Buildings can be seen within the avenue of trees extending south from Chippenham Park on the 1949-1971 OS. Very little trace of the airfield is evident today, but the location of one of the runways extends across Parcel ECO5 within this site. The A14 and A11 trunk roads are also modern introductions. The A11 to the east of Sunnica West Site A largely follows an historic alignment, but the A14, which opened in the 1970's, cuts across former farmland. This framework comprises woodland blocks which are visible on historic Ordnance Survey maps of the late 19th century, such as Coachroad Plantation to the south and Sounds Plantation to the south east of Chippenham Park. Modern aerial photography shows that further woodland planting, predominantly linear belts on field boundaries, have further strengthened this framework. Woodland proposed as mitigation for the Scheme is therefore in character with the local landscape. With the exception of views from the Limekilns Gallops (viewpoint 38), the Applicant has assessed all residual visual effects at year of operation as being not significant. This is largely due to the extent of existing vegetation which, in the relatively flat landscape, curtails longer distance views, and the sensitivity of receptors. There are few residents and also no public rights of way in proximity to Sunnica West Site A with the exception of bridleway 204/5, which lies to the west and is screened by extensive woodland which lines most of its length. The woodland and hedgerow planting proposed as part of the mitigation is appropriate to the character of this landscape, reinforcing the pattern visible in historic aerial photographs.
10.180	*Operational phase impacts – the Accumulation of Adverse Effects and Intra- and Inter- Cumulative Effects*	Effects on people's views have been assessed with reference to visual receptor groups and associated representative viewpoints, in line with GLVIA3. Some people may be attributable to more than one visual receptor group, e.g. residents of settlements in proximity to the Scheme who also use the public right of way and local road networks. In line with best practice, these effects are assessed separately.

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	The Councils consider that the accumulation and longevity of the following visual effects are significant: VP2A, VP2B, VP2C, 12B, VP22, VP23, VP 37, VP40	With respect to viewpoints, paragraph 6.21 of GLVIA3 states that these "*need to cover as wide a range of situations as is possible, reasonable and necessary to cover the likely significant effects*." Paragraph 6.22 adds that "*in addition to fixed views, the viewpoints should also, as far as possible, cover important sequential views along key routes and transport corridors. Viewpoints should cover both near and more distant views, though not so distant as to be meaningless, unless it is useful to demonstrate the influence of distance. And they should cover the full range of different types of people who may be affected*." The selection of representative viewpoints used in the LVIA has followed this approach and has considered the likelihood of intra-project cumulative effects and sequential views. There are some visual receptors, for example users of public rights of way and roads, who would experience sequential views of the Scheme along a route. These effects have been assessed separately for each part of the Scheme with reference to representative viewpoints. The Applicant does not agree that the accumulation of these effects are significant and the worst-case has been considered with respect to each point. For example, the negligible adverse effects on the views of people walking along the River Lark in year 15 of operation at viewpoints 2A, 2B, and 2C. In addition, the combined intra-project effects of the Scheme on people's views of the landscape have also been considered in Chapter 10 of the Environmental Statement [**APP-042**]. Such effects would arise where different parts of the Scheme would be visible in the same view. The worst-case has therefore been assessed for each receptor group.
10.185 to 10.188	*Associated Development Impacts – highway schemes* The Councils identify the following trees and other vegetation that they consider make a particular contribution to character and are at risk from the Scheme: • Junctions of B1102 Mildenhall Road and The Street, Freckenham. Semi-mature trees within the double junction, to the	The Applicant has considered the contribution of trees and other vegetation in defining Local Landscape Character Areas (LLCA) and in assessing the effects on landscape character at all scales within the Landscape and Visual Impact Assessment summarised in Chapter 10 of the ES [**APP-042**]. The likely arboricultural impacts associated with the Scheme will be identified in the Arboricultural Impact Assessment which has been submitted at Deadline 03. This includes consideration of the key areas identified by the Councils – summarised below: Junction of B1102 Mildenhall: No impact is anticipated to trees subject to TPO. The semi mature Aesculus species of tree within the central roundabout is likely to require pruning on its western side to address construction vehicle oversail. This tree is not subject to a TPO but is located within the Freckenham Conservation Area. It is a relatively young tree compared to mature trees in the village but contributes positively to its character, occupying an important location at this road intersection. Pruning will be carried out under the supervision of a qualified

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	east (TPO/1972/182) and south (also TPO'd). • Newmarket Road (works plans, sheet 16). Mature tree belt/woodland along eastern edge of Newmarket Road which forms an important visual screen. • Fordham Road, north of Snailwell. The mature vegetation on either side of the road contributes to its secluded character and screening of Sunnica West B. • Chippenham Road (works plans, sheet 14). This is a straight road, lined with an avenue of protected (TPO) trees.	arboriculturist and this tree (due to its age and species) is likely to regenerate canopy in pruned areas and is also likely to require pruning for statutory highway clearances in the future regardless of the Scheme. Newmarket Road: A very small amount of tree removal (consisting of young and semi mature scrub/smaller trees) is likely to be required to widen the existing access into the field. This work will not affect the character of the area. Widening will be achieved using a 3D cellular confinement system installed using no dig techniques to minimise tree loss and widening will take place on the norther side of the existing access point only to provide the greatest clearance to the more mature trees to the south. Fordham Road: No tree pruning or removal is anticipated in this location at this stage. Chippenham Road: Two trees subject to a TPO are to be removed to facilitate the cable route and associated access. This is a worst case and further detailed assessment of the potential to avoid tree loss will be included in the Arboricultural Report secured via the CEMP **[EN010106/APP/6.2]** submitted at Deadline 3**.** Any pruning will adhere to BS3998 and will be supervised by an arboriculturist. In light of all of the above, the minimal impacts reported in the AIA Report are not considered to lead to likely significant effects in EIA terms.
10.189 to 10.197 and 10.232 to 10.238	Associated Development Impacts – required mitigation The Councils raise concerns regarding the mitigation, summarised as follows: • Appropriate balance of good design and positive place making • The mitigation as proposed is not sensitive enough to the existing landscape character	As described in the Design and Access Statement (DAS) [**AS-312**] and Chapter 10: Landscape and Visual Amenity of the ES [**APP-042**, section 10.7], the design of the Scheme has been an iterative process, which commenced in 2015 at the initial feasibility stage. It has been guided by the "criteria for good design" set out in the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), published landscape character assessments and fieldwork analysis. Detail is provided in the DAS and Chapter 10 of the ES (section 10.7) regarding how the Scheme design conforms with these criteria. In particular, this includes siting of the solar panels relative to existing landscape patterns, landform and vegetation, through: • careful siting of the Scheme in the landscape by the structures being offset from settlement edges, existing vegetation, including hedgerows and "pine lines", public rights of way and road networks;

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	and not sufficiently tailored to the location and conditions • The embedded landscape mitigation and the tree and hedgerow planting within the LEMP lack the required detail to give confidence that the proposals are deliverable • The type of grasslands proposed do not appear to be based on soil type or fertility • The LEMP does not provide sufficient detail with regards to additional mitigation measures • The Councils are not confident that the LEMP would be effective in delivering and securing well designed green infrastructure • The councils would also require a strategy for the mitigation of trees and shrubs that are removed in association with highway improvements, creation of access points and provision of the cable route • There is no commitment in the LEMP on management of the solar farm by grazing	• conserving field patterns, ecology and historical features (including below ground archaeology) across the Order limits, including pine lines; and • creating new green infrastructure within the Order limits which integrates with networks across the study area and includes new permissive routes to provide linkages between Freckenham and Isleham and Red Lodge and Worlington. NPS EN-1 notes that "*that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area*." The design of the Scheme has focused on responding to the local landscape character and the relationship with existing settlements and has been tailored to the location and conditions of the site. Paragraph 1.1.4 of the Outline Landscape and Ecology Management Plan (OLEMP) **[N010106/APP/6.2]** submitted at Deadline 3, explains that the OLEMP provides a framework for achieving the 'vision' of the Landscaping Masterplan, as illustrated on Figures 1 to 6, in Annex A. It is informed by best practice and experience of the design, delivery and long-term management of planting for similar large-scale planting and habitat management schemes and makes reference to appropriate technical standards, including relevant British Standards. Detailed landscape and ecological management plans will be approved by the relevant local planning authority and will be required to be in accordance with the OLEMP. This will secure and deliver the well design green infrastructure proposed. Further detail on the proposed tree and hedgerow, retention planting and vegetation management will be introduced into the OLEMP and illustrated on a new series of Environmental Masterplans submitted at Deadline 3. Additional detail will also be added to the OLEMP regarding the species composition of proposed planting, responding to the different character areas identified. These changes follow discussions with relevant officers of the host authorities. A soil map drawn up for the Scheme has been used to inform the types of grassland proposed. It is assumed, given the current regime of crop and pig husbandry, that the soil will initially be high in nutrients. The OLEMP commits to grazing grassland within the Scheme through the following: • paragraph 1.7.12 – conservation (low intensity) grazing by sheep; • paragraph 1.7.14 – grassland will be managed by either low intensity grazing or infrequent hay cutting to allow plant species to flower and seed; and

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	• The management prescriptions for existing and proposed woodlands, tree lines and hedgerows are either absent from the LEMP document or not sufficiently specific.	• Annex C Field management after Establishment - refers to Conservation grazing with the notes on conservation grazing. Proposed highway improvements and access points to facilitate the Scheme are considered in the Arboricultural Impact Assessment. An initial assessment of key areas of concern identified by the Councils is provided in section 10.185 to 10.188 above.
10.198 to 10.201	**Associated Development Impacts – Improved Mitigation Required** These paragraphs set out comments on mitigation associated with specific parcels within the Scheme and are summarised below: • Parcel E05 - The Councils consider that, in landscape terms, Lee Brook would be a more appropriate boundary for this development proposal and that E05 should be removed or significantly reduced in size • Parcel E33 - Consideration should be given to the adjustment of the location of the BESS so that it can be better mitigated by appropriate woodland planting. • Parcels E30, E31, E32/ Golf Links Road - The Councils consider that, with appropriate woodland and tree belt planting, it should be possible to integrate solar arrays	Parcel E05 lies to the west of Lee Brook, extending towards Sheldricks Road before the land rises up to Isleham. Parcel E05 follows the large modern field boundaries, which are an amalgamation of the smaller field pattern evident on aerial photographs from 1945 available in Google Earth. The Sunnica East Parameter Plan in Figure 3-1 [**APP-135**] shows that new tree and shrub planting is proposed to enclose the field defined by Parcel E05, reinforcing the existing vegetation patterns which have suffered from this historical amalgamation. The species selected for this woodland will reflect the character and conditions of the landscape at this point of transition between the fens to the north and west and the chalkland to the south and east. Parcel E33 has been selected for the BESS within Sunnica East Site A because of its proximity to existing structures, vegetation and earthworks around Lee Farm. This, together with woodland planting that is also proposed to enclose the BESS, will assist in integrating and screening the facility. Substantial blocks of woodland lie to the south of parcels E30, E31 and E32 on the higher ground of Chalk Hill and along the edge of the A11 to the east. This landform and vegetation create a strong natural edge of the development in this part of the site. Existing vegetation along Golf Links Road to the north will be reinforced by a dense belt of trees and shrubs. The tall belt of trees which divide parcels E30 and E31 will also be retained. The vegetation retained and proposed around the edges of these parcels will substantially enclose the panels and solar stations, minimising perception of the Scheme in the surrounding landscape. Regarding Elms Road, there will be some minor works to create temporary passing places for construction vehicles within the existing roadside verges. Some localise vegetation removal may be required to facilitate construction of the site access between parcels E16 and E18. The character of the site access will be similar to accesses to farms across the surrounding area. No further works are proposed to Elms Road which would affect its character, such as kerbs or

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	successfully into the landscape with minimal residual effects on the local landscape character and visual receptors. • Elms Road - More detailed information is required with regards to proposed alterations to Elms Road itself and the effects these will have on the character of the road and on visual receptors. proposals for mitigation will need to be more robust to be effective.	changes to surfacing. Any damage to verges as a consequence of construction access will be made good.
10.202 to 10.205	*Requirements and Obligations - Areas of the project that are not capable of effective mitigation or amelioration* The Councils consider that: • The site that has been chosen for Sunnica West A is unsuitable for the development of the proposed solar panels from a landscape and visual impact perspective. The removal of solar panels and associated infrastructure from the Sunnica West A would significantly reduce the extent of harm. • The current proposals to use U6006 as an access to some of the solar plant parcels,	The Applicant has carefully considered the layout of the development proposed within Sunnica West Site A to minimise its impact on the landscape and views of the landscape. The existing landscape framework of hedgerows and woodland blocks assist in integrating the development into the landscape, providing enclosure and screening reinforced by additional planting. As explained in paragraph 3.6.7 of the DAS [**AS-312**], a design decision was made between statutory consultation and submission of the Application to omit parcels W13, W14 and W16 adjacent to Chippenham Park in response to feedback received from stakeholders, including local planning authorities. This moved the northern boundary of Sunnica West Site A approximately 600m further south and avoided encircling La Hogue Farm. As noted in paragraph 10.6.309 of Chapter 10 of the ES [**APP-042**], the ZTV shows no visibility of the Scheme across Chippenham or Chippenham Park. This is confirmed by VP30 from Chippenham High Street, illustrated in Figure 10.54A and 10.54B [**APP-227**]. This figure shows that intervening vegetation and buildings screen views of the land within the Order limits from within Chippenham. Similarly, for VP31 in Figure 10.55A [**APP-227**] and VP32 within Chippenham Park shown in Figure 10.98A to 10.98C [**APP-228**], vegetation and the tall boundary wall would screen views of the Scheme. Updated ZTVs were submitted at Deadline 1 [**REP1-008** to **REP1-013**]. The unclassified road U6006 is an unmade track which runs largely through dense vegetation between Ems Road in the south and Worlington in the north. There are some sections, for

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	would have a devastating effect on the character of the route, its amenity value, and its value as a well-connected wildlife corridor. Impacts on the U6006 should be limited to a single crossing point for the cable route only. There should be no operational access across this landscape feature • The Councils consider the visual effects on the U6006 as detrimental, if Parcel E12 was to be implemented as it is currently proposed. The Councils consider that the solar panels and associated infrastructure should be removed from E12.	example close to Worlington and where the route crosses a minor watercourse where there are gaps in the vegetation and therefore more open views across the surrounding landscape. Significant effects would remain in year 1 of operation for recreational users including horse riders on U6006 with sequential views of Sunnica East Site B (including E12), represented by viewpoints 15, 15A, 15B and 16. By year 15 of operation these effects are predicted to reduce to not significant as existing vegetation would be in leaf and planting carried out as part of the Scheme would have established. The effectiveness of this mitigation in minimising visual effects on users of U6006 is illustrated in Figure 10 of the Outline Landscape and Ecology Management Plan **[N010106/APP/6.2]** submitted at Deadline 3, and the photomontage from viewpoint 15A in Figure 10.95 [**APP-225**]. The route of U6006 will not be used for access during construction, operation or decommissioning. There will be a road closure to facilitate construction of the cable crossing between parcels E12 and E13 for a maximum period of one weeks during construction (Sheet Number 60589004-TRM-TRC-017 in the Traffic Regulation Measures Plans - Road Closures - Part 3 [**REP2-009**]).
10.207 to 10.219	**DCO and Work Plans - Important Hedgerows** The Councils raise several points regarding the definition and survey of hedgerows, including important hedgerows, and how these have been considered in the assessment of effects and the design of the Scheme.	Existing hedgerows were surveyed and assessed for their "importance" against the criteria as detailed in the Hedgerow Regulations 1997, and none were considered to be 'important'. The design of the Scheme sought to avoid the loss of existing hedgerows wherever possible. Nevertheless, it is assumed that some small sections of hedgerow will need to be removed during construction of the Scheme to facilitate access routes, grid connection cable and new fence-lines. These will be restored where possible post-construction where permanent access is not required – this would be explained in the detailed LEMPs. Further consideration will be given at the detailed design stage to the routing of cables and access to avoid hedgerow loss, through micrositing and horizontal directional drilling techniques for example. The result of the biodiversity net gain (BNG) calculations is that there will be a greater than 10% increase in BNG for hedgerows (BNG calculations are being updated and using metric 3.0). This net gain is based in part on 7.4km of hedgerow creation and infill planting of existing damaged

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		and defunct hedges, which have suffered from decades of intensive agricultural management. Additionally, throughout the Scheme undeveloped buffers have been included to protect all hedgerows during construction and operation as shown in the Parameter Plans and secured through the Works Plans. Hedgerows will be allowed to grow tall (2-3m in height) and wide to provide maximum benefits for biodiversity contributing to broad habitat corridors throughout the Scheme.
10.220 to 10.226 and 10.231	• The Councils state that full detailed tree surveys should be undertaken to inform the detailed design and be agreed in writing with the LPAs. • The Councils request that a full AIA and AMS are submitted and agreed in advance of commencement. • The Councils request that no article in the DCO should authorise any works to any tree subject to a tree preservation order. Such works, if demonstrated to be unavoidable, should be agreed with the relevant LPA on a case-to-case basis so that appropriate compensation can be agreed and secured • The Councils identify that Section 36, para 4 doesn't mention the Wildlife and Countryside Act and should be limited or controlled due to the	Detailed tree surveys have now been carried out for much of the Scheme, and other areas have been reviewed via desk study and site walkover. Further detail on impacts to trees will be included within the Arboriculture Report that will be produced alongside the CEMP for approval by the LPAs, and which will account for the design decisions that have been made which led to the construction impacts that will be set out in that Report. This is reflected in the updated Framework CEMP [**EN010106/APP/6.2**] submitted at Deadline 3. The commitment to provide a full AIA and detailed AMS prior to commencement is included in the CEMP. This will cover all areas of the Scheme where an arboricultural impact is likely. The AMS would cover location specific construction methods but these will be grouped where they can be addressed via a standard methodology with tree protection details shown on a site wide Tree Protection Plan with additional inset details where further detail is required. Full planning consent is an exception to the requirement to apply for works to a tree subject to a TPO where the works are explicitly identified as part of the application and the Applicant is simply seeking to ensure the same principle applies to the DCO. Any tree works (including pruning or removal) which are identified as part of the Arboricultural Impact Assessment submitted at Deadline 03 would be consented as part of the wider DCO consent. Any further tree works, including to trees subject to TPO (not identified in the AIA) would be identified in the Arboricultural Report (produced alongside the CEMP) which would be submitted for approval by the LPA. This is included as a commitment in the CEMP alongside a commitment to minimise impacts to TPO trees wherever possible. Measures to minimise hedgerow loss and provide protection to retained hedgerows within the Order limits are presented and secured within the Framework CEMP [**N010106/APP/6.2**] submitted at Deadline 3.

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	habitat they provide (e.g. removal of hedgerows only where identified on approved plans). • The Councils request that the DCO does not remove legislation applying to TPO trees. The Councils also state that its not possible to assess if retained trees have been considered in relation to operation and future maintenance taking into account future growth. • The Councils state that its not acceptable to remove the requirement for replacement trees to be planted for removed trees subject to TPO. • The Councils request that deemed consent (in relation to TPO trees) relates solely to trees identified for removal on the approved plans. • The Councils request that f any tree or shrub is removed, dies or becomes seriously damaged or diseased during the operational phase of the scheme or during the aftercare period, it must be replaced with suitable replacement plants or	The requirement for an Arboricultural Report to provide tree survey data for any unsurveyed areas and an updated impact assessment and detailed method statement is included in the CEMP. As part of this report a detailed assessment of TPO trees will be undertaken including consideration of any potential to further avoid or reduce impacts. In terms of operation and future maintainance tree heights and shading impacts are considered in the AIA report. In general solar arrays are located well clear of adjacent retained trees and are not impacted by shading. The majority of trees are relatively mature and are unlikely to significantly increase in height to the extent where shading impacts on solar array operation will result in pressure to fell or prune trees. Due to the extent of tree clearance for access routes and visibility, this will provide sufficient clearance for construction that can then be maintained into the future on an ad hoc basis which will not be overly onerous. The loss of TPO trees as identified in the AIA report will be mitigated by the Scheme landscaping and tree planting proposals. A reasonable worst case has been assumed and no further impacts are anticipated, however if any additional TPO trees to be removed or impacted this will be identified in the Arboricultural Report (produced alongside the CEMP) which will be submitted for approval in advance of commencement. This will also consider in detail any potential to further reduce impacts to trees subject to TPO. In relation to 'deemed consent' - Any additional TPO trees to be removed (identified as part of the pre commencement tree surveys) would be identified in the Arboricultural Report which would be submitted for approval in advance of commencement as part of the CEMP. Paragraph 1.7.69 of the Outline Landscape and Ecology Management Plan (OLEMP) **[N010106/APP/6.2]** submitted at Deadline 3, confirms that all new tree planting would be subject to the maintenance regimes, in which all plants found to be dead or dying would be replaced within the first available planting season. This will apply during the five-year establishment maintenance period after which all new planting plots will undergo an annual condition assessment and an appropriate programme of works developed to address changes in condition and site requirements.

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	trees to the specification agreed in writing with the relevant LPA during the next available planting season (the following November/December).	
10.227 to 10.229	• The Councils request that Schedule 2 Detailed design approval 6: is amended to include information relating to what trees are removed or impacted by the proposals. This should form part of the layout and scale details as the presence of trees must receive suitable consideration when at the design stage, as this is the point when this can be altered to allow the retention of any quality trees and plan their replacement if removals are required. • The Councils raise concerns over the specification and installation of fencing near trees including the risk of toxic impacts to tree roots from uncured cement. • The Councils request that surface water and foul drainage are fully considered	Information relating to trees to be removed or impacted by the proposals is included in the AIA Report. Further detail on impacts to trees will be included within the Arboriculture Report that will be produced alongside the CEMP for approval by the LPAs, and which will account for the design decisions that have been made which led to the construction impacts that will be set out in that Report. This is reflected in the updated Framework CEMP submitted at Deadline 3. As set out in the PAMS included in the Tree Constraints Report **[APP-101]** any fence post footings with the RPA of a retained tree will be dug by hand and be adjusted to avoid significant roots (under the supervision of an arboriculturist). Any uncured cement within an RPA will be applied into post holes lined with an impermeable membrane to prevent any leaching of uncured concrete into the soil and root zone. Uncured concrete will be carefully managed with impermeable sheeting and bunding within or near to RPAs so that no toxic material is discharged into the soil. This will be further underlined in the detailed method statement to be provided pre-construction as stated in the Tree Constraints Report **[APP-101]** and is secured as a commitment in the CEMP. All drainage proposals are indicative and will be amended to avoid the RPA of retained trees. The Arboricultural Report will consider the final drainage arrangement and provide an updated impact assessment and detailed method statement which will be based on detailed tree survey data and will be submitted to the LPAs for approval in advance of commencement.

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	to prevent impacts to retained trees	
10.230	**Associated Developments: Landscape Planting** The Councils state that landscape retention plans should be at a suitable scale, clear and complete and included under approved documents	Landscape Masterplans included in Annex A of the Outline Landscape and Ecology Management Plan (OLEMP) **[N010106/APP/6.2]** submitted at Deadline 3, set out the proposed mitigation access the Scheme. The Applicant has also now developed a series of Environmental Masterplans which illustrate the environmental mitigation and describe its functions. This includes the retention of existing vegetation, informed by hedgerow surveys and an Arboricultural Impact Assessment. These Environmental Masterplans have been submitted at Deadline 3.
14.27-14.29	The Councils consider that the Applicant has not adequately assessed impacts on PRoW users as visual receptors, specifically equestrian users, plus councils consider landscape and visual impact on U6006 greater than assessed	The Applicant disagrees with the Council on this matter and has provided detailed responses in relation the same issues raised in paragraphs 10.91 to 10.94, 10.127 to 10.140, and 10.202 to 10.205 of the LIR.
14.38	The Councils consider that the new permissive path as part of Sunnica East site A, aligned with Beck Road south of Isleham, whilst welcome, has limited value because it is temporary for the duration	As shown on the Environmental Masterplan [**EN010106/APP/8.47**] submitted at Deadline 3, this permissive path will provide a 1km segregated, off-road route for walkers, cyclists and horse riders between Sheldrick's Road east of Isleham and the junction of Beck Road and Bridleway W-257/007/0, which leads south to Freckenham. The path will be set within an approximately 100m wide swathe of native grassland bound by woodland, which will screen views of the solar panel arrays in the adjacent parcel E01. This permissive path will persist for the 40-year life of the Scheme, providing a local benefit by enhancing access to the countryside and alternative routes between settlements.
14.40 and 14.47	The Councils refer to Public Rights of Way (PRoW) as being historic and living features that are part of the landscape and that the Councils consider that the Applicant has not	As noted by the Councils, there are few existing PRoW in the area and few which intersect the permanent parts of the Scheme. The integration of existing PRoW and new permissive routes to enhance public access to the countryside have been key considerations in the design of the Scheme, as set out in the Design and Access Statement **[APP-264]**. The visual impacts on users of PRoW are summarised in Chapter 10: Landscape and Visual Amenity of the ES **[APP-042]**. Offsets from PRoW are embedded into the Scheme design and planting is proposed where appropriate to provide visual screening whilst retaining the legibility of features on the skyline in

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	proposed measures to enhance them as a lasting benefit of the Scheme.	longer views, such as landmarks and pine lines. An example is Bridleway W-257/007/0, which will run adjacent to the edge of ECO2, enhancing the setting of the route by providing extensive areas of native grassland and connecting with a new permissive route adjacent to Beck Road connecting with Isleham to the west.

7 Chapter 11 Noise and Vibration

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Table 7 Mitigation	Table 7 sets out the Councils' view regarding the construction noise mitigation measures that are required to satisfy local policy requirements.	The Framework Construction Environmental Management Plan (CEMP) [**REP2-026**] contains details on how best practicable means have been adopted to reduce construction noise effects as far as reasonably practicable. This is considered to be an appropriate level of mitigation based on the construction noise assessment showing no significant effects. Additionally, community engagement will be undertaken regarding the timings and duration of construction works as outlined in the Framework CEMP submitted at deadline 3.
Adjustment to working practices	Adjustments to working practices in the Framework CEMP are required.	Core construction working hours will run from 07:00 to 19:00 Monday to Saturday.
11.11	The Councils consider that there is uncertainty in the detail of the baseline noise assessments, and they are not satisfied that the appropriate receptors have been identified due to the position of some rural and isolated properties which may experience lower background and ambient noise levels than those identified by the long-term monitoring results	Operational noise is assessed based on guidance from BS 4142, which provides a method for determining noise criteria using the LA90,T background noise level (the noise level that is exceeded for 90% of the time). This allows 'quiet' conditions to be defined from monitoring locations and omits any periods of high noise events. Long-term monitoring at LT7 show a typical level at night (which is the most onerous assessment period) of 35 dB $L_{A90,15min}$ respectively (as used in the operational noise assessment). This level of background noise is considered to be typical of rural areas and unaffected by periods of traffic, which are unlikely to occur for over 90% of the time and contribute to the LA90,T metric. The threshold of 35 dB LAr,Tr (as applied to R9 Badlinghman receptors) for night-time noise is in line with guidance in the Association of Noise Consultants Guide to BS 4142, which states: "*BS 4142 does not define 'low' in the context of background sound levels nor rating levels. The note to the Scope of the 1997 version of BS 4142 defined very low background sound levels as being less than about 30 dB LA90, and low rating levels as being less than about 35 dB LAr,Tr".* The ANC Guide suggests that: *"…similar values would not be unreasonable in the context of BS 4142, but that the assessor should make a judgement and justify it where appropriate*". A minimum rating level of 35 dB LAr,Tr for the LOAEL (as defined as equal to the background noise in ES Chapter 11) aligns with guidance in PPGN, which defines noise below the LOAEL as follows:

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		"*Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life".* Consequently, the LAr,Tr rating noise threshold applied to R9 is considered reasonable.
11.21	The Councils would not support any proposal to conduct construction works or deliveries outside the hours of 0800 and 1800 Monday-Fridays and 0800 and 1300 Saturday and at no time on Sundays, Public Holidays or Bank Holidays on any part of the application site.	Core construction working hours will run from 07:00 to 19:00 Monday to Saturday. Where on-site works are to be conducted outside the core working hours, they will comply with the restrictions stated in the relevant CEMP, and any other restrictions agreed with the relevant planning authorities pursuant to the section 61 consent process as set out below.
11.22	Any s.61 application should only be submitted following extensive pre-application discussions and agreements being in place. However, it is the preferred option of the LA to consider construction noise impacts and mitigation as part of a dynamic construction noise management plan which has been agreed through the planning process rather than submissions under the COPA.	Consultation with the relevant local authority will be undertaken to determine an appropriate method for agreeing construction noise mitigation measures.
11.23	Concerns are often raised about breaches of acceptable vibration standards and damage to property, so it is recommended that as part of the noise monitoring procedures to be adopted within the detailed CEMPs and any s.61 applications, vibration monitors are also installed at key sites	The level of vibration required to result in cosmetic damage to properties is substantially higher than that which may result in disturbance. As significant vibration disturbance due to construction activities was not identified at any sensitive receptors in Chapter 11, Noise and Vibration of the Environmental Statement [**APP-043**], no vibration monitoring was considered necessary. However, consultation is being undertaken with HPUT laboratories to determine whether any requirements are necessary to protect vibration sensitive equipment. Depending on the results of

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	during relevant periods of piling and drilling to enable reassurance to residents and the LA that guideline limits are being met.	this consultation, vibration monitoring at HPUT laboratories may be added to the mitigation measures for the Scheme.
11.23	The CEMP should also contain a Piling Method Statement to be agreed with the LA before any such work takes place. This shall include a requirement in line with controls currently placed on piling operations within the LA area, for such work to be undertaken between 0900 – 1700 hours Mon-Fri with no piling outside of these hours or at weekends, Public Holidays or Bank Holidays.	A Piling Method Statement will be included in the CEMP. The piling method to be adopted will be dependent on the results of the geotechnical survey.
11.24	There will be a requirement, either due to levels of uncertainty in the baseline background data or due to the issue of lower frequency noise impacts not being characterised within an LAeq measurement under BS4142, for continual review of assessments and predictions, and assurances provided that the final design and position of plant and equipment will have no adverse impact.	Baseline noise monitoring was undertaken to limit any uncertainties that may occur in data by avoiding school holidays and adverse periods of weather. The detailed design of the Scheme will include noise modelling of the final design to determine compliance with noise predictions in Table 11-16 and Table 11-17 of Chapter 11, Noise and Vibration of the Environmental Statement **[APP-043]**.
11.29	Low frequency hum from any of the proposed fixed plant is an issue that requires further consideration. and technical evidence provided in any final report if predictions show	Low frequency noise can be very difficult to predict with a high level of certainty and similarly hard to identify and resolve if present. This is because it can be generated by the unexpected interactions between system components and can be amplified by the geometry of the site and receptor buildings. The issue of low frequency noise will be appropriately mitigated (through

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	negligible or minor adverse impact. Plant types and specifications have not yet been confirmed. It will be key going forward that it can be demonstrated that estimates of impacts have not been underestimated.	isolation and attenuation measures). This commitment will be included as part of the design principles.
11.34	The LA did not consider that the data was sufficient at the time, to provide confidence that an expansion to the transformers onto land via Option 1, would not have a cumulative effect on general and low frequency noise levels at the nearest sensitive receptors.	The proposed Burwell National Grid Substation Extension – Option 1 has been removed from the Scheme following the Relevant Representation from NGET. The preferred alternative option is to provide 33kV/400kV transformers at each of the onsite substation locations within Sunnica East Site A, Sunnica East Site B and Sunnica West Site A. However, until this option is confirmed as feasible by NGET, Burwell National Grid Substation – Option 2 which is located 450m from the closest receptor in Burwell will remain within the Scheme. Based on these changes, there are not anticipated to be any significant noise effects for residents within Burwell during operation of the Scheme.
11.35	For internal low frequency noise complaints, the LA refers to the guidance from the University of Salford on the Procedure for the Assessment of Low Frequency Noise Complaints (Ref NANR45) to understand impact on occupiers at night. No reference was made to this guidance.	NANR45 sets out a process for investigating low frequency noise complaints. It states in Section 1.1: "It is not intended as a means of predicting when disturbance might occur, for example in a planning situation, and would not be reliable to use as such". Consequently, NANR45 is not considered to be appropriate for assessing low frequency noise in the context of planning.
11.37	Option 3 is proposing changes to the infrastructure at Sunnica West A, Sunnica East A and Sunnica East B, to include individual transformers on each of these sites. A shunt reactor would also be introduced at Sunnica East Site B. The connection to the Burwell Substation would be via a 400kv underground cable. The	Changes in noise as a result of Option 3 would result in increase in noise from combined solar infrastructure plant at receptors nearest the substation and battery storage areas (R5, R6, R8, R9, R10, R11) of no greater than 2 dB. This difference in noise is not perceptible to the average human ear and would result in absolute noise levels that are no worse than a Low impact. Consequently, the new infrastructure associated with NMC-03 would not result in additional significant noise effects. The transformers and the shunt reactors are subject to detailed design to determine the plant manufacturer and the final layout of the area. The Operational Environmental Management Plan (OEMP), based on the Framework OEMP [**REP2-030**], that is brought forward for approval in

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	consultation documents on these proposed changes provided no detail as to the potential environmental noise and/or vibration impacts of the revised arrangements or the new items of equipment on these 3 sites. There will be a requirement to provide modelled updates on construction, operational and decommissioning noise and vibration impacts from the changes being proposed and robust evidence to support any conclusions as to negligible, low or medium adverse impacts for sound levels and frequency profiles at the nearest sensitive receptors.	detailed design will set out how the Scheme design and operational plant levels have been developed to mitigate and reduce effects as far as reasonably practicable. The construction programme for the substations associated with Option 3 has been reviewed as part of the engineering design and is expected to be carried out over longer periods (up to 50 weeks) than assumed in the ES, to account for the additional complexity of the 400kV electrical configuration. As outlined below in the Transport and Access section, the number of HGV and staff vehicle movements are not anticipated to change, and similarly the construction methods are not changing from those assessed within the ES. Although the noise and vibration effects would be extended in duration, they would be expected to be lower in magnitude from construction traffic as it would involve less traffic movements over a longer period. Therefore, the conclusions of the construction traffic impact assessment would remain valid and represent the worst-case situation, while the noise and vibration from onsite activities would remain as assessed in the ES.
11.38	The applicants position on specific noise levels and tonal impacts of transformers at receptors near to the proposed new sites, where there are no existing low frequency hums or road traffic sounds at night, will therefore be key. Robust evidence to be provided to support any conclusions reached. Assurances must be provided going forward that impacts have not been underestimated or, if applicable, that mitigation measures can be applied, once final plant types, specifications and positions on each site, relative to sensitive receptors, are confirmed.	Low frequency noise can be very difficult to predict with a high level of certainty and similarly hard to identify and resolve if present. This is because it can be generated by the unexpected interactions between system components and can be amplified by the geometry of the site and receptor buildings. The issue of low frequency noise will be appropriately mitigated (through isolation and attenuation measures). This commitment will be included as part of the design principles.

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11.43	Community engagement will be key in the successful management of concerns around dust and air quality emissions during construction and decommissioning phases. The contact details of the person or persons on site accountable for air quality and dust emissions and whom the public can direct specific concerns, should be readily available and advertised, not just displayed at the entrance to the site.	This is agreed, and contact details will be made readily available as committed to in section 2.4 of the Framework CEMP [**REP2-026**].
11.44	... The CEMP should be reviewed and amended as necessary prior to the decommissioning phase	A Framework Decommissioning Environmental Management Plan was submitted as Appendix 16E of the Environmental Statement **[REP2-028].**
11.49	The Dust Management Plan talks about highly recommended and desirable measures. Agreements will be sought on the most appropriate measures considering sensitive human receptors and considering the location and construction activities taking place at specific times; the requirement being to consider dust mitigation controls and/or monitoring requirements as a dynamic process that will be under regular review throughout the construction period.	The dust risk assessment has been undertaken assuming a worst case of the highest level of construction occurring across the whole site simultaneously. In reality, different levels of construction activities will take place in different locations and time frames throughout the construction period. The recommended mitigation measures are based on this worst case assessment, and as such the measures recommended will be over and above the likely level required to ensure no off-site dust impacts. The CEMP will more fully reflect the precise activities and will be a live document. Regular visual monitoring of construction activities and dust generation will ensure that measures can be strengthened, or work stopped if dust impacts do occur.

8 Chapter 12 Socio-economics

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12.17, 12.18, 12.19, 12.20, 12.21, 12.22, 12.39	The Councils consider that the socio-economic assessment presented in Chapter 12 of the ES by the applicant is inadequate and based on incorrect assumptions. The elements of the assessment referenced are: • Home based workers assessment • Indirect and induced jobs and the accounting for this in supply chain availability	Discussions are underway with the LPAs on the assessment and will be taken forward in the SOCG. **Home based workers assessment** The home-based workers assessment presented in Chapter 12 of the ES [**APP-042**], presented as a Leakage factor within the assessment of construction employment generation, was carried out using Census 2011 Origin and Destination data representing the number of people that travel into the 45-minute travel area for work, amounting to 88% workers being home-based. The broad approach to this assessment is aligned with typical EIA methodology including consideration of leakage as set out in the Homes and Communities Agency Additionality Guidance (3rd Edition). The Applicant therefore considers its methodology of assessment to be an appropriate level of detail on which to base an assessment of significant effects in EIA. The Applicant acknowledges that a more detailed assessment of home-based workers is possible that accounts for considerations set out by the LPAs in the LIR, including: the current locally available construction workforce; and workforce availability when taking into account planned and future projects, including other solar projects. To further this, the Applicant has confirmed the roles required by number of workers and whether these are skilled, semi-skilled and unskilled. The Applicant considers that the semi-skilled and unskilled roles have the potential to be met by the local labour force further to a consideration of labour force availability. It is currently engaging with the LPAs to understand local labour force availability to confirm this alternative assessment of home-based workers. **Indirect and induced jobs and the accounting for this in supply chain availability** The approach to the assessment of indirect and induced workers set out in Chapter 12 of the ES [**APP-042**], is aligned with typical EIA methodology including consideration of local multiplier effects as set out in the Homes and Communities Agency Additionality Guidance (3rd Edition). The Applicant therefore considers this methodology of assessment to be an appropriate level of detail on which to base an assessment of significant effects in EIA. There are a number of precedents for the application of it on consented NSIPs, including solar energy development.

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		The Applicant acknowledges that the appropriate multiplier factor selected varies between development projects based on the application of the Additionality Guidance. As the LPAs assertion is that the chosen multiplier factor of 2.33 is too high, to further this the Applicant is preparing an alternative assessment using a lower multiplier – 1.5, a ready reckoner – drawn from the Additionality Guidance and applied on other solar energy NSIPs, to assess whether this would still result in the anticipated significant effects. The Applicant considers that a detailed analysis of availability of suppliers/supply chain resilience would not be robust at this stage as it would be subject to the contractual arrangements. However, the Applicant will seek to, including in accordance with the OSSCEP, maximise opportunities for investing in local supply chain and businesses that can support the development of the Project and other solar projects in the area. It is also currently engaging with the LPAs regarding the assessment.
12.23	The Councils accept that the construction of Sunnica Energy Farm could have some minor positive short-term impacts on the local supply chain through investment in local businesses to deliver the installation of the project.	The Councils acknowledgement of some positive impacts is welcomed, and the Applicant's position is that the Outline Skills, Supply Chain and Employment Plan, submitted as part of the DCO Application [**REP2-034**], would, once implemented in full post-consent, deliver additional positive outcomes. This includes the Applicant seeking to maximise opportunities for investing in local supply chain and businesses that can support the development of the Project and other solar projects in the area. With specific regard to the scheme's supply chain, the OSSCEP highlights the following opportunities: • the involvement of local companies in the construction and operation supply chain; • the development and implementation of an inclusive procurement strategy; and • a programme of business networking and support. The OSSCEP forms an outline basis for which positive outcomes and mitigation can be delivered, for taking forward further in a full Skills Plan to be developed and agreed with the LPAs, other key local stakeholders, and the community as necessary in advance of construction of the scheme commencing. Specific measures such as those referred to in the LIR can be discussed, confirmed and agreed in this full Skills Plan.

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12.24, 12.25, 12.37	The Councils expect there to be a considerably higher number of construction workers to be non-home-based. This may result in a minor positive impact that could be gained in the local economy in terms of additional spend from a non-home-based workforce. However, the exact value of this additional spend cannot be determined until the applicant has conducted a realistic assessment of number of home-based workers compared to the non-home-based ones. On balance with negative impacts, this positive impact will not outweigh the negative local economic impacts.	The broad approach to this assessment as presented in Chapter 12 of the ES [**APP-042**], is aligned with typical EIA methodology including consideration of leakage and multiplier effects as set out in the Homes and Communities Agency Additionality Guidance (3rd Edition). The Applicant acknowledges that a more detailed assessment of home-based/non-home-based workers is possible. It is currently engaging with the LPAs to understand local labour force availability to finalise this alternative assessment of home-based/non-home-based workers to confirm the expected positive impact from additional spending, which was captured in the ES assessment via a multiplier factor. Overall, the Applicant does not consider that negative local economic impacts would outweigh positive impacts.
12,38, 12.49, 12.50, 12.51, 12.52, 12.53, 12.54	Agriculture (construction) 12.49 - SCC anticipate a negative effect on food production and agricultural employment 12.50 - Draft of EN-3, extend soil survey to cable and access routes 12.51 - Review of ALC by SNTSAG 12.52 - irrigation and ALC	12.49 - an objective of maintaining food production is not supported by planning policy. Landowners are under no obligation to produce food and the intention is that land will remain in agricultural production through grazing of sheep. Routine variations in food production will subsume any discernible signal from the development of solar power. For example, the Defra Food Security report (2021) notes the 2020 drop in annual wheat yield of 40% due to adverse weather. The full impact of the 2022 drought is yet to be seen as abstraction licence volumes likely to remain restricted through 2023. The farming sector is currently struggling with meeting labour needs therefore the potential for of agricultural worker unemployment resulting from Sunnica is remote. A more detailed assessment of the employment effects of the Sunnica scheme is given in Chapter 12 of the Environmental Statement. 12.50 - Sunnica Soils and Agriculture assessment predates draft of EN-3 which we note in November 2022 is still a draft. It is appropriate to carry out an assessment of the soil resource present along the service and access routes following consent being granted. SCC acknowledge that there is no loss of agricultural land extent or quality from a cable route. A SMP will be

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	12.53 - loss of land	submitted for approved by the relevant planning authority as part of the CEMP and OEMP. This will give greater protection to the soil than under the current business as usual situation for any arable land subject to land work each autumn.
	12.54 - Existing consent for anaerobic digester	12.51 - Following its recent submission to the ExA we have now had an opportunity to see the Patrick Stephenson Ltd report. Our understanding that this report was prepared on behalf of SNTS is confirmed by SCC. However, this is not acknowledged in the report. This report describes work in limited detail, that does not comply with Natural England guidance for ALC survey given in TIN049. All of the Patrick Stephenson field work was conducted on land outside of the Sunnica site. No sample point data or laboratory analysis results are provided. Crucially for ALC drought limitation, no Moisture Balance information is provided and there is no indication that Moisture Deficits have been calculated – the method set down in the 1988 ALC guidance the Patrick Stephenson Ltd report refers to. The Patrick Stephenson report is not therefore credible evidence. 12.52 - The Natural England correspondence is quite clear, upgrading drought limited land for the presence of irrigation infrastructure has not been supported in ALC since 1997. The presence of irrigation infrastructure does not make land better quality or more versatile, and access to abstraction from groundwater or rivers is subject to licences from the EA. The 2022 drought has had a predictable impact on the volume of water a farm can abstract. This impact is likely to persist well into 2023, including for surface water abstraction which is taken overwinter and held in reservoirs for the following growing season. TIN049 is clear, "The current agricultural use, or intensity of use, does not affect the ALC grade." 12.53 - Agricultural land is not lost to a solar farm. Consent is temporary and agricultural production can continue through the operational period. Upon decommissioning, the land will be returned to the landowners in a condition to allow farming activities undertaken pre-construction to be carried out (subject to landscape and ecology mitigation which will be left in situ following decommissioning). ALC assessment is the approach supported by planning policy guidance and Natural England.

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		12.54 - No fields will be 'eliminated'. Grass, sugar beet and whole crop maize are grown for anaerobic digestion substrate. Grass can be perennial but sugar beet and maize are annual crops that can be produced as monoculture or in rotation with other crops. The anaerobic digester (AD) has a geographic constraint on the land used to grow feedstock, but can also be permitted to use agricultural and industrial by-products approved by the EA. AD produces fewer kWh/ha than solar PV (Geyer, R et al: Spatially Explicit Life Cycle Assessment of Sun-to-Wheels Transportation Pathways in the US (Environ. Sci. Technol., 2013, 47 (2), pp 1170–1176)), and with the most popular feedstock crop, maize, is a cause of soil degradation and water pollution risk in contrast to solar which enables a recovery of soil health and a reduction in the export of water contaminants. The proposed AD can respond to the presence of the solar farm by increasing the presence of AD substrate crops in the rotation, using more by-product material and/or reducing gas output. As solar produces more kWh/ha than AD it would not be prudent to constrain solar PV land in favour of AD crops.
12.27, 12.28, 12.29, 12.30, 12.31, 12.32, 12.33	The Applicant has not provided detailed plans and skills strategies towards maximising employment, skills and education impacts from the project. There are opportunities for some positive employment, skills and education impacts, in terms of employment levels and reducing inequalities by creating opportunities for those furthest from the workforce and for vulnerable groups, by identifying the different skills required across their total workforce, against labour market availability. In parallel, the applicant would also need to identify local supply chain companies	An Outline Skills, Supply Chain and Employment Plan has been submitted as part of the DCO Application and has been updated in response to previous representations [**REP2-034**]. This seeks to secure the potential improvements, mitigation and positive outcomes to local communities that would be implemented as part of the Scheme. With specific regard to employment, skills and education, the opportunities for this that the OSSCEP highlights are: • a programme of activities for schoolchildren and young people which promote science, technology, engineering, and mathematics ('STEM') education and careers. • the ability of local residents to access employment opportunities associated with the construction and operation of the Development, including apprenticeships • the potential for interventions to support the training of employees and workers on the Scheme. • the potential for implementing initiatives to maximise the diversity of the workforce; With specific regard to the Scheme's supply chain, the OSSCEP highlights the following opportunities:

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	that can become part of the Sunnica supply chain. The scheme, as part of the wider energy infrastructure construction projects, is an opportunity to generate skills and employment outcomes and subsequently contribute to the achievement of both national and local policy objectives. This is through working with their associated supply chains, contractors and local partners to recruit and train local people ahead of the construction period. The Sunnica solar farm scheme will provide many opportunities for local apprenticeship recruitment.	• the involvement of local companies in the construction and operation supply chain; • the development and implementation of an inclusive procurement strategy; and • a programme of business networking and support. The Applicant has stated a general aspiration to involve local businesses and contractors as far as practicable during the construction phase. A supply chain event would be held prior to the start of construction to help identify local businesses and contractors with relevant capabilities. The draft DCO includes a requirement that the Applicant must prepare the skills, supply chain and employment plan substantially in accordance with the OSSCEP, for approval by the relevant planning authority, and the councils therefore are responsible for the approval of the plan that the Applicant will then implement. In addition, the Applicant is in discussions with the council regarding wider community benefits.
12.43, 12.44, 12.45, 12.55, 12.56, 12.57	The Councils expect levels of labour market churn which will have significant negative impact upon the local labour market and economy. This is including through the scale of development taking place around the region that would likely require some of the skills and workforce needed for the construction of this project capacity. No cumulative impact assessment has considered this.	The approach to the assessment of construction employment generation, set out in Chapter 12 of the ES [**APP-042**], is aligned with typical EIA methodology including in consideration of ready reckoners for displacement, as set out in the Homes and Communities Agency Additionality Guidance (3rd Edition). There are a number of precedents for the application of it as best practice on consented NSIPs, including solar energy development. The 'low' factor selected is considered to be justified based on the nature of construction activities. Construction workers typically move between construction projects when delays occur or to help the workforce meet construction deadlines. The Applicant therefore considers this methodology of assessment to be appropriate on which to base an assessment of significant effects in EIA.
12.48	Economic cost of congestion and journey time delays to local businesses, as a result of increase in construction traffic and highway works.	A robust construction management plan will be implemented, with due consideration to be given to the management of construction traffic both in terms of the impact of vehicle movements upon the highway network and highway network users including local businesses to minimise delays and disruption. The Applicant has set out details of its approach to managing impacts from

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		construction in the Framework Construction Traffic Management Plan and Travel Plan [**APP-118**], the approval and implementation of which is secured via a requirement to the DCO. As a result, no impacts are anticipated, and no associated economic costs are expected.
12.67, 12.70, 12.73	There will be limited operational jobs generated and therefore there will be a negligible long term sustainable positive impact on employment.	The assessment of operational employment set out in Chapter 12 of the ES [**APP-042**] concluded that whilst the maintenance and engineering activities during operation will generate some employment, this will be modest given the intensity of these activities and there would be a negligible effect on the local economy arising from this. An Outline Skills, Supply Chain and Employment Plan (OSSCEP) has been submitted as part of the DCO Application [**REP2-034**]. Whilst this is primarily focused on construction of the Scheme based on the relative scale of opportunities within that phase, some of the positive outcomes from this would also be expected to be experienced during operation of the scheme.
12.82, 12.83, 12.84, 12.85	Agriculture (operation) 12.82 - expect a negative impact from loss of food production and farm employment 12.83 - Draft of EN-3, extend soil survey to cable and access routes. 12.84 - Evidence on yield needed 12.85 - adequacy of ALC assessment	12.82 - an objective of maintaining food production is not supported by planning policy. Landowners are under no obligation to produce food and the intention is that land will remain in agricultural production through grazing of sheep. Routine variations in food production will subsume any discernible signal from the development of solar power. For example, the Defra Food Security report (2021) notes the 2020 drop in annual wheat yield of 40% due to adverse weather. The full impact of the 2022 drought is yet to be seen as abstraction licence volumes likely to remain restricted through 2023. The farming sector is currently struggling with meeting labour needs therefore the potential for of agricultural worker unemployment resulting from Sunnica is remote. A more detailed assessment of the employment effects of the Sunnica scheme is given in Chapter 12 of the Environmental Statement. 12.83 - Sunnica Soils and Agriculture assessment predates draft of EN-3 which we note in November 2022 is still a draft. It is appropriate to carry out an assessment of the soil resource present along the service and access routes following consent being granted. SCC acknowledge that there is no loss of agricultural land extent or quality from a cable route. A SMP will be submitted for approved by the relevant planning authority as part of the CEMP and OEMP. This will give greater protection to the soil than under the current business as usual situation for any arable land subject to land work each autumn.

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		12.84 - Evidence on yield should not be required. Were such evidence to be provided it could be highly misleading, for instance yield for 2022 is expected to be low as a result of drought. NPPF guidance is clear, and it does not include any reference to evidence on yield. In the SCC LIR Table 8, a planning policy is referred to against this claim that has no relevance to crop yield. The Applicant has responded to questions in relation to yield by the Examining Authority in its response to Written Question 1.9.8 at Applicant's Response to First Written Questions [**REP2-037**]. As noted by the Applicant in that response, in terms of the policy tests relevant to the consideration of the Application, these are as set out at Section 6.12 of the Planning Statement [**APP-261**] and relate to the impact of the proposed scheme on BMV land, as informed by the ALC grades. The relevant assessment for policy purposes (and therefore decision-making purposes under the Planning Act 2008) is one that is based on the grade of the agricultural land, rather than its current use (including whether it is currently grazed or cultivated). 12.85 - Following its recent submission to the ExA we have now had an opportunity to see the Patrick Stephenson Ltd report. Our understanding that that this report was prepared on behalf of SNTS is confirmed by SCC. However, this is not acknowledged in the report. This report describes work in limited detail, that does not comply with Natural England guidance for ALC survey given in TIN049. All of the Patrick Stephenson field work was conducted on land outside of the Sunnica site. No sample point data or laboratory analysis results are provided. Crucially for ALC drought limitation, no Moisture Balance information is provided and there is no indication that Moisture Deficits have been calculated – the method set down in the 1988 ALC guidance the Patrick Stephenson Ltd report refers to. The Patrick Stephenson report is not therefore credible evidence.
12.58, 12.59, 12.60, 12.61, 12.81	The scheme will potentially impact on Suffolk as a tourism destination, with the recovery of the tourism sector potentially taking several years following construction. The proposal affects several Public Rights of Way which are an important feature of tourism visits.	The Applicant's position on this is as per its response to Relevant Representation RR-0998 [**REP1-016**] (ECDC-62), which is as follows. The Applicant's EIA Scoping Report [**APP-051**] submitted to PINS contained no specific reference to an assessment of effects on tourism as no specific receptors, such as visitor attractions, had been identified within the defined study areas to justify such an assessment being needed as no significant effects were expected. The Scoping Opinion [**APP-052**] response received from PINS also did not request that such an assessment was required. However, Chapter 10: Landscape and Visual Amenity of the Environmental Statement [**APP-042**] did assess the impact on visitor views in the vicinity of the Scheme and the loss of long-distance views as relevant. This includes from PRoWs which provide the main

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		opportunity for recreation in this otherwise predominantly agricultural area. Accordingly, Chapter 12 of the ES [**APP-044**] also assessed impacts on PRoW users which could include visitors to the area. On this basis, potential effects on tourists were assessed in the Environmental Statement in so much that effects on views and use of PRoWs were set out which comprise the main matters of potential impact on these receptors. The assessment concluded that there would be no significant effects.
12.63, 12.86	A project of the scale and nature proposed will radically change the sense of place, the place attachment of the residents, and the recreational amenities of the affected villages and communities, over a long period of time, with residual impacts on the wellbeing of the community and locality.	The Applicant's position on this is as per its response to Relevant Representations RR-1340 [**REP1-016**] (SCC-18) and to the First Written Questions via Appendix A Settlement design iteration [**REP2-038**] which is as follows. The landscape within the study area is the product of centuries of increasingly intense agricultural expansion and development. It is, by design, a productive landscape. A detailed assessment of landscape character has considered the likely effects of the Scheme on the landscape at different scales. Most of the area is under intensive arable production with some areas of pasture around village edges and is interspersed with other uses such as settlement, large-scale free range pig farming and quarrying. In the southern part of the study area, the horse racing industry has transformed the landscape with extensive, manicured training areas and associated facilities. Important areas for nature and historic conservation are recognised as islands within the agricultural landscape. The Scheme is large and to mitigate this it has been designed as a series of discrete sites separated by substantial areas of largely intensively managed agricultural land and offsets from settlement edges. The landscape on the fringes of these settlements, which is not proposed to include above ground infrastructure related to the Scheme, tends to be more intricate than the surrounding arable land, with smaller fields defined by mature vegetation and well vegetated gardens. This, together with tree and shrub and hedgerow planting proposed as part of the masterplan for the Scheme, will maintain the sense of place and place attachment of residents. Several settlements are located in the study area defined within Chapter 10: Landscape and Visual Amenity of the Environmental Statement [**APP-042**]. Individual community areas are described in turn below: • Worlington – This small village, centred on The Street, is the closest to proposed solar farm infrastructure within Sunnica East Site B. The nearest area of solar panels (parcel E24) would be located 220m from the property of Queens Hill, on the southern edge of the village. Chalk grassland and a belt of woodland is proposed between the southern edge of the village and the solar panel arrays. Parcels E26 and E27 would be located

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		approximately 200m south of the club house of the Royal Worlington and Newmarket Golf Club, which is surrounded by dense vegetation and beyond shelter belts which would enclose the Scheme. On the western edge of the village, solar farm development within parcel E12 would be located approximately 270m south of the closest property, beyond an area of open land currently used for free range pig farming. This open edge would be retained by an extensive area of grassland (ECO3). In summary, proposed offsets and the density of existing and proposed vegetation would limit perception of the Scheme and the potential effects on the setting of the settlement. • Red Lodge – This is a largely post -war settlement, centred on Warren Road. The closest part of the Scheme would be parcel E21 of Sunnica East Site B, located approximately 450m west of Red Lodge, beyond the busy A11 trunk road and industrial development on Bridge End Road. The sense of place and place attachment of residents will not be affected. • Freckenham – The closest area of solar panels to this village would be parcel E05 in Sunnica East, approximately 1.2km to the north, with native grassland within ECO1 and ECO2 and several belts of existing and proposed vegetation in between on boundaries of fields in the largely flat landscape. The sense of place and place attachment of residents will not be affected. • Isleham – Solar panels would be located approximately 500m from the southeastern corner of the village in parcel E05 of Sunnica East, beyond intervening arable land. A belt of woodland is proposed to enclose and screen the structures. Solar panels in parcels E01 and E03 would be located approximately 1.2km from the eastern edge of the village, beyond Lee Brook, which is not perceptible due to intervening vegetation in the flat landscape. • West Row – The southern edge of this small village would be located approximately 700m from the closest area of solar panels to the southwest located in parcel E02 of Sunnica East. The Scheme would lie beyond the well -vegetated River Lark. • Fordham – The closest area of solar panels to Fordham would be parcels W01 and W02 of Sunnica West, approximately 1km south of the settlement and located to the east of Snailwell. There is substantial woodland and other mature vegetation in the intervening landscape, such that the Scheme will not affect its setting or character.

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		• Chippenham – This small village lies to the north of Chippenham Park and Gardens. The closest part of the Sunnica East Site B would be parcel E19, approximately 2km to the northeast. The closest part of Sunnica West would be approximately 1.6km south, beyond Chippenham Park and Gardens. The sense of place and place attachment of residents will not be affected. • Snailwell – The hamlet of Snailwell would be located approximately 260m west of the closest area of solar panels in parcel W03 of Sunnica West, enclosed by proposed woodland planting and screened by intervening vegetation and rising land. There would also be solar panels in parcel W02 to the north, beyond an existing belt of mature trees. The sense of place and place attachment of residents will not be affected. • Burwell – The proposed cable connection at Burwell would be located adjacent to and in the context of the existing substation. The fields on the western side of the village are small and defined by tree lines and dense hedgerows, creating physical separation from the sub-station. In summary, it is acknowledged that the scale of the Scheme is large. The layout, across discrete sites within Sunnica A and Sunnica B, is intentional. The Scheme has been designed to avoid development within or directly on the boundaries of existing settlement and to retain separation between settlements and the wider landscape. Significant effects on the sense of place and place attachment of residents of settlements is not likely and that there would therefore be no consequential impacts on wellbeing of the community in these locations. There are sections of roads where solar farm infrastructure would be in closer proximity, for example to the north of Beck Road between Isleham and south of the B1102 Freckenham Road between Worlington and Freckenham. In such cases mitigation has included limiting development to one side of the road, providing offsets of grassland and additional planting to enclose and screen solar farm infrastructure.
12.87, 12.88, 12.93	The Councils identify potential positive impacts from the Scheme on the supply chain and economic development which may compensate the wider residual impacts on the local economy. In order to recognise this, the Councils expect the applicant to	An Outline Skills, Supply Chain and Employment Plan (OSSCEP) has been submitted as part of the DCO Application [**REP2-034**] and has been updated in response to previous representations. This seeks to secure the potential improvements, mitigation and opportunities for local communities that could be implemented as part of the Scheme. The OSSCEP sets out opportunities to support employment, skills and education, and the supply chain which the Applicant could take forward post-consent. Potential delivery arrangements for the

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	work with the Councils to provide the following mitigation measures: • a positive strategy, including key targets for financial investment contribution from the project towards the growth of local supply chains and businesses. • Schemes to encourage non-home-based workers spend with local retailers. The Councils expect the applicant to include the following mitigation measures to minimise any employment, skills and education impacts: • Deliver and fund activities that develop both local talent pools and local people • Work with the Councils to ensure that where possible skills training has a long term demand within the region • Set ambition of 5% of the roles required by the project to be filled through 'earn and learn' positions • Create transferable skills base • Increase the size and diversity of the labour market pool	OSSCEP are set out. These include an organisational framework with suggested roles and responsibilities, identification of key partners, and a timeline for development of a full SSCE plan and its implementation post-consent. Potential methods for performance monitoring are set out, including illustrative outputs and outcomes which would indicate if the objectives and aims of the OSSCEP are being achieved. The OSSCEP forms an outline basis for which positive outcomes and mitigation can be delivered, for taking forward further in a full Skills Plan to be developed with the LPAs and approved by the LPAs in advance of construction of the scheme commencing. Specific measures such as those referred to in the LIR can be discussed, confirmed and agreed in this full Skills Plan.

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	• Put into place clear plans (e.g., commitments within contracts) • Incorporate social value measures within all activity • Skills Plan • Monitor skills, employment and education outcomes	
12.94	The Councils expect the applicant to include mitigation measures to minimise any tourism impacts.	The Applicant's EIA Scoping Report [**APP-051**] submitted to PINS contained no specific reference to an assessment of effects on tourism as no specific receptors, such as visitor attractions, had been identified within the defined study areas to justify such an assessment being needed as no significant effects were expected. Chapter 10: Landscape and Visual Amenity of the Environmental Statement [**APP-042**] assessed the impact on visitor views in the vicinity of the Scheme and the loss of long-distance views as relevant. Accordingly, Chapter 12 of the ES [**APP-044**] also assessed impacts on PRoW users which could include visitors to the area. The assessments concluded that there would be no significant effects on these receptors requiring mitigation.
12.95	The Councils expect an appropriate mitigation/compensation package for local communities. This would be in addition to any potential community benefits from the development, including any to be introduced as announced in the Government's British Energy Security Strategy.	The Applicant is in discussions with the councils regarding delivering wider community benefits in response to relevant representations and the potential provision of a Community Benefit Fund (CBF). This funding is not required to mitigate the impacts of the Scheme. Therefore, the CBF does not form part of the DCO application and accordingly the Secretary of State must not apply any positive weight to the CBF when making a decision on the overall planning balance of the Scheme. However, any agreed commitment to provide the CBF will be secured by a legal agreement between the Applicant and the host authorities.
12.96	In order to mitigate employment, education and skills impacts and maximise opportunities the Councils are seeking to secure the following through obligations:	The Outline Skills, Supply Chain and Employment Plan (OSSCEP) submitted as part of the DCO Application [REP2-034] seeks to secure the potential improvements, mitigation and positive outcomes to local communities that could be implemented as part of the Scheme. The proposals are considered to provide appropriate mitigation for the Scheme and for securing opportunities in connection to it relating to employment, skills and education.

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	• The provision of an employment outreach fund and a capital and revenue fund • A workforce delivery strategy prepared in collaboration with the main contractors for the project and the Councils and local stakeholders • An Apprenticeship strategy integrated with the Applicant's workforce delivery strategy • Enrichment and enhancement of Suffolk's current educational inspiration offer and its content • Provision of a bursary scheme • Funding for a dynamic approach to monitoring skills, employment and education outcomes and impacts • Funding towards a regional skills coordination function embedded in the system.	The Applicant will, where necessary, enter into discussions regarding the need for any of the suggested obligations to mitigate the impacts of the Scheme, and where any such obligations are agreed they would be secured through a legal agreement.
12.42, 12.76, 12.77, 12.78, 12.79, 12.89, 12.90	Potential loss in local economy due to change in investor perception of area as a destination for horseracing business, during operational life of project. Applicant should work with the industry to understand the industry's concern and discuss possible mitigation	A Horse Racing Industry Impact Assessment has been undertaken on behalf of the Applicant and was submitted at Deadline 2. This considers whether there is any evidence that the scheme will likely impact the long-term viability of the Horse Racing Industry (HRI) in Newmarket as a whole (or whether it will impact on any specific HRI site within Newmarket). The Horse Racing Industry Impact Assessment concludes that there is no basis for concluding that the mere act of granting permission for a facility that is perceived adversely by the horseracing industry would harm the industry. It goes on to conclude that there are no compelling reasons to

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	measures that would focus on maintaining the perception of the local area for its continued suitability for the horseracing investment and business growth.	show that the Scheme will detrimentally impact the horseracing industry in its operations or longer-term viability. The Applicant has proactively engaged with the horseracing industry throughout the life of the project. As set out by the Consultation Report [**APP-026**], this engagement has included meetings with the Jockey Club on 6th March 2019, 20th March 2019 (site visit to Lime Kiln Gallops) and 17th September 2020 and a site visit to Darley and Godolphin Stud on 19 July 2019. The Applicant also wrote directly to the Jockey Club and Newmarket Horsemen's group at non-statutory consultation and received substantive comments from Newmarket Horsemens' Group and the British Horse Society at statutory consultation. The responses to pre-application engagement with horseracing industry stakeholders have been taken into account by the Applicant, as explained by the Consultation Report [**APP-026**]. Following submission of the DCO application, the Applicant has continued to seek to proactively engage with stakeholders in the horseracing industry. This includes requests to meet with Newmarket Horsemen and to progress a Statement of Common Ground (SoCG), both as a stand-alone stakeholder and jointly with the Say No to Sunnica Action Group (SNTS). The Applicant will continue to seek meaningful engagement from these interested parties throughout the Examination. The Applicant will continue to engage with the local community, including the horseracing industry, throughout the delivery of the Scheme. The Framework Construction Environmental Management Plan (CEMP) [**REP2-026**] sets out that a Community Liaison Group will be set up prior to construction and a Community Liaison Officer will be appointed to lead discussions with local communities during construction. Members of the horseracing industry will be invited to join the Community Liaison Group. The Framework Operational Environmental Management Plan (OEMP) [**REP2-030**] sets out that A Community Liaison Officer will be appointed to lead these discussions with local communities during operation. Requirements 14 and 15 of the Draft DCO secure the provision of these arrangements during construction and operation, respectively, through the requirement for approval of a detailed CEMP and OEMP, substantially in accordance with the framework versions that are included as part of the application for Development Consent.

9 Chapter 13 Transport

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	Table 9: Summary of Impacts – Transport (Highways)	
1g	Junction layout Applicant does not demonstrate that the junction layout required to provide safe access can be achieved fully within highway or DCO boundary prior to approval may result in the later provision of a safe access being unfeasible. Construction of an inappropriate junction would be significantly detrimental to highway safety.	The Applicant respectfully disagrees that the application does not demonstrate that the junction layouts required to provide safe accesses can be achieved fully within DCO Order limits. This information has been provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. In addition, the Traffic Regulation Measures Plans – Temporary Measures [REP2-007 to REP2-011 inclusive] identify the proposed temporary speed limit and traffic signals which are to be used during the construction period to provide safe entry and egress of the site accesses. Notwithstanding this, the Applicant recognises the comments raised by the Local Highways Authorities. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground.
1h	Visibility Applicant has not demonstrated that visibility appropriate to the speed of the road can be achieved fully within highway or DCO boundary prior to approval may result in the later provision of a safe access being unfeasible. Construction of an inappropriate junction would be significantly detrimental to highway safety.	The Applicant respectfully disagrees that the application does not demonstrate that visibility appropriate to the speed of the road can be achieved fully within DCO boundary. This information has been provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. In addition, the Traffic Regulation Measures Plans – Temporary Measures [REP2-007 to REP2-011 inclusive] identify the proposed temporary speed limit and traffic signals which are to be used during the construction period to provide safe entry and egress of the site accesses. Speed data information was collected, at the request of the local highway authorities, and is provided in Chapter 5 of in the Framework Construction Traffic Management Plan and Travel Plan [AS-278, AS-279] alongside the proposed temporary speed limits to be applied for the relevant site accesses during the construction period.

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		Notwithstanding this, the Applicant recognises the comments raised by the Local Highways Authorities. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground.
1i	Junction capacity Applicant has not demonstrated sufficient capacity within the junction/access roads, as required to ensure safe access to the site may result in construction to the significant detriment to highway safety.	The Applicant respectfully disagrees with the Council's position that sufficient information has not been provided. Notwithstanding this, we have been working towards signposting and clarifying a number of points, with the aim of reaching agreement. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground. To enable this, a draft set of site access drawings has been prepared and provided to the LHAs. The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. A summary of the information provided on the drawings for each access includes: • Location and intended use in construction and/or operational phases; • Scale provided on each individual drawing; • North arrow on each individual drawing; • Identified if the base mapping is either topographical or Ordnance Survey (OS) on each individual drawing; • On-site measurements recorded during site visit; • Swept path analysis for vehicle types including large cars, HGVs, a 1000T crane and a 46.63m AIL; • Indicative site access layouts including dimensions;

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		• Visibility splay for the main staff access during the operational period; • Summary of the site access use during the construction period in terms of HGVs; • Reference is made to the Traffic Regulation Measures Plans – Road Closures and Temporary Traffic Regulation Measures Plans - Temporary Measures) [REP2-007 to REP2-011 inclusive]; • Summary of the proposed temporary traffic signals and the achievable visibility splay during the use of the temporary traffic signals; • Include the Order Limits; and • Identified the in-principle Highway Works on Elms Road and La Hogue Road required to accommodate two-way HGV movements.
1j	Inappropriate offside radii The proposal to provide either small or no radii on the exits from sites is considered inappropriate. While a presumption is made that there will be no flow in that direction, it is unclear whether demand for turning in this direction will exist (possibly associated in onward travel between site), or how such movements would be adequately controlled so to entirely prevent contrary movements. Failure to either prohibit movement or provide appropriate access would be significantly detrimental to highway safety.	A key principle in designing the site access strategy has been to avoid unnecessary vegetation clearance or provision of areas of hardstanding, particularly where the use of the access is temporary, i.e. just during the construction phase, in order to limit environmental impacts of the scheme. This includes avoiding providing large, and therefore inappropriate, offside radii where not required to accommodate the turning movements proposed. The local highway authorities note that it is likely to be no flow in the direction where a small radii is identified at the site access. That is a correct assumption as this is in line with the vehicle routes established within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] and secured by requirement 16 contained in Schedule 2 to the draft DCO which requires the relevant county authority's approval of the CTMP before the commencement of the development. Appropriate radii have been provided at site access junctions to accommodate all movements required by the HGV routes. The HGV routes are provided in the Transport Assessment [APP-117] and the indicative site access layouts are provided in the Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. Notwithstanding this, the Applicant recognises the comments raised by the Local Highways Authorities. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for

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		24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground.
1k	Junction construction Applicant has not provided sufficient details of the form of construction required to ensure durability of the highway and to prevent migration of materials or standing of surface water in the highway to the significant detriment to highway safety.	The level of information provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] is proportional to the stage of the project with detailed design of the site accesses to be provided at a later stage, prior to construction. . The detailed design of site accesses is required to be submitted for the approval of the relevant planning authority prior to the commencement of the project in in accordance with requirement 6 contained in Schedule 2 to the draft DCO. In relation to drainage, this is addressed by requirement 12 which requires the approval of the surface water drainage strategy to be approved by the county planning authority prior to the commencement of the project. A commitment is made by the Applicant to provide wheel washing facilities, within Chapter 7 (paragraph 7.2.17) of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] to mitigate the risk of material migrating into the highway.
1l	Gates Absence of information regarding the positioning of gates may result in inappropriate setback being provided. Failure to enable vehicles to clear the highway while gates are being opened may result in vehicles dwelling in the highway to the significant detriment to highway safety.	Information is provided within the Transport and Access Chapter [APP-045] and Transport Assessment [APP-117] of the vehicles required to access the site accesses which includes cars, HGVs and AILs. Any existing gates will be removed to provide access and egress during the construction period. The level of information provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] is proportional to the stage of the project. Detail on the positioning of gates and any other associated barrier control will be part of the detailed design submission post-DCO Examination and prior to construction, as is typical of the design process. This will ensure that there is sufficient space provided within the site for vehicles to clear the highway while gates are being opened. Gates will be located within the site on land within the Applicants control.
1m	Highway Drainage It is unclear how the additional surface water runoff from impermeable surface will be managed or whether there is sufficient capacity within the existing	The information provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] is proportional to the stage of the project with detailed design of the site accesses to be provided prior to construction of the site accesses and appropriate information will be provided regarding drainage details post consent, should development consent be granted, in accordance with the provisions of requirement 12 contained in Schedule 2

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	highway to accommodate this without resulting in water standing in the highway to the significant detriment to highway safety.	to the draft DCO, which requires the County authority's approval of a surface water drainage strategy before the works commence. While the authorities' concerns to ensure the continuing function of the highway drainage system is understood by the Applicant, there is no reason in principle to consider that the details of such matters cannot be addressed at a later date as part of the detailed design of the project.
1n	Internal arrangements Applicant has not provided sufficient details of the internal arrangement of each access sites to determine sufficient capacity to accommodate use and prevent inappropriate manoeuvring or obstruction in the highway with significant detriment to highway safety.	Information is provided within the Transport and Access Chapter [APP-045] and Transport Assessment [APP-117] of the vehicles required to use the site accesses which includes cars, HGVs and AILs. Indicative layouts of the construction staff car parks are provided within Chapter 5 of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. The internal site layout in the vicinity of each access is a matter for detailed design. All vehicles required to enter and leave the site from/to the public highway will do so in a forward gear, with any turning movements required being undertaken within the site. Further clarification was provided to the Local Highway Authorities in the July 2022 video conferencing meeting regarding the internal layout of the two staff car parks. The internal haul road leading to Sunnica East construction staff car park allows for circa 400m of internal queuing of construction staff vehicles (circa 70 vehicles). This excludes the internal queuing within the car park itself. The internal haul road leading to Sunnica West construction staff car park allows for circa 200m of internal queuing of construction staff vehicles (circa 35 vehicles). This excludes the internal queuing within the car park itself. There will be substantial space within the sites to allow for any queuing into the car park areas to be managed appropriately.
1o	Hard standing No details of the extent of hardened surface entering each of the sites has been provided and it is not therefore possible to consider whether, irrespective of the use of wheel washing, that this would be sufficient to mitigate the risk of deleterious material being tracked into the	The information provided is proportional to the stage of the project and a commitment is made by the Applicant to provide hard standing surface at the site accesses and wheel washing facilities, within Chapter 7 (paragraph 7.2.17) of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301], compliance with which is secured by requirement 16, to mitigate the risk of material migrating into the highway.

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	highway, to the significant detriment to highway safety.	
1p	Ditches It is anticipated that the proposals will generally require widening of existing accesses. Applicant has not provided details of the relationship of any ditches/watercourse with respect to any proposed junction or road widening, and any piping or stopping up required, which may compromise the structural integrity of the highway or the flow of water in the local surface water drainage system resulting in flooding, either of which would be significantly detrimental to highway safety.	The information provided is proportional to the stage of the project and detail design of the site accesses will be undertaken at an appropriate stage of the project to ensure drainage is not impacted by any highway works at the site accesses. Chapter 9 of the Applicant's Environmental Statement [APP-041] assesses the likely significant environmental effects of the Sunnica Energy Farm in relation to flood risk, drainage and water resources and appropriate mitigation measures are included in the Framework Construction Environmental Management [REP2-026] and Operation Environmental Management Plan [REP2-030].
1q	Bridges It is unclear whether due consideration has been given to the presence of existing small bridges/culverts along the proposed access routes and whether they have the structural capacity to withstand the loading of the vehicles proposed. Failure to ensure structural capacity may result in damage/collapse, which would be significantly detrimental to highway safety.	The construction routes proposed are in line with the weight restrictions for the local highway. Where there are no weight restrictions in place, the public highway is available for use by legal and roadworthy vehicles. It is the responsibility of the Local Highway Authority, and not the Applicant, to identify vulnerable structures on the existing public highway where there are not current weight restrictions, and introduce such weight restrictions as required. The F-CTMP [AS-300] at paragraph 7.2.14 includes the provision for undertaking highways condition surveys before, during, and after construction, and making good any damage caused as a result of construction vehicle trips. A weight restriction was identified on the bridge on Freckenham Road / Isleham Road junction. Therefore, an alternative vehicle route for the Abnormal Indivisible Load (AIL) was identified which avoids the bridge. The swept path analysis for the Ferry Lane (Freckenham Road) / Isleham Road junction is provided within Figure 29 in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] and the vehicle routes avoid the bridge with the weight limit.

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1r	Traffic Management There are sites where it appears unlikely that an intrinsically safe design can be achieved without additional mitigation measure being in place while the access is in use. No specific details appear to have been provided in this regard. failure to provide appropriate safe access to the highway would be significantly detrimental to highway safety.	Appropriate site access management is identified within the Traffic Regulation Measures Plans – Temporary Measures [REP2-010 to REP2-010]. The Traffic Regulation Measures Plans show the extents of the proposed traffic regulation measures which are described in Schedule 14 to the draft DCO. These plans and the Schedule identify the temporary traffic signals and temporary speed limit reductions required to provide safe entry and egress of construction site accesses while they are in use. Further details of the proposed temporary traffic management measures are provided in Chapter 7 of the Framework Construction Traffic Management Plan [AS-300]. This has been established as an alternative to carrying out significant vegetation clearance to provide visibility splays required to conform to standards, in order to limit environmental impacts where the use of the accesses is temporary. The temporary traffic management measures are only required for construction accesses, and not operational accesses. Visibility splays are demonstrated to be achievable at the two main site staff accesses (Sunnica East Access C and Sunnica West Access A) during the operational phase, which are in use for construction and operational phases. All other operational accesses are existing accesses which will not experience material intensification of use, and therefore remain acceptable in their current form. Access plans are provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301].
1s	Proposed reinstatement of accesses The proposed reinstatement of verges after the construction phase, while retaining access during the operation phase will fail to provide safe access for the intensification of use, which would be significantly detrimental to highway safety.	Due to the low number of operational staff and activities there will not be an intensification of use of the majority of the site accesses above existing levels due to the very infrequent maintenance expected to be required. Verges are not proposed to be re-instated at the main staff site accesses during the operational phase on Elms Road and La Hogue Road, however will be reinstated post decommissioning when no longer required as part of the Scheme.
1t	Approach roads It is unclear whether the width of roads on delivery routes on the approach the main construction site accesses, such as La Hogue Road are sufficient to	A draft set of site access drawings has been prepared and provided to the LHAs. The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A.

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	accommodate the increase flow of HGVs. Increasing the number of large vehicles passing one another on narrow roads will also increase overrun of the road edge resulting in damage to and rutting of the road edge/ verge which can contribute to loss of control accidents, to the significant detriment of highway safety.	The Drawings identify sections of Elms Road and La Hogue Road to be widened up to 7.2m width is based on swept path analysis of two HGVs passing another. The swept path analysis of the two 16.5m articulated HGVs passing one another takes into consideration the passing of wingmirrors, local characteristics such as the verge, vegetation, trees and telephone poles as well as on site observations when identifying the locations of highway works along Elms Road and La Hogue Road. These indicative highway works are within the Order Limits. Paragraph 7.2.14 of the F-CTMP & TP [AS-300, AS-301] identifies that the Applicant will undertake highway conditional surveys before, during and after the construction to identify any impacts which are a result of the development that need to be remediated. The exact roads to be surveyed are to be agreed with the local highway authorities in advance of construction through the approval of the Construction Traffic Management Plan, in accordance with requirement 16 of the draft DCO. Analysis of the existing number of HGVs on La Hogue Road is provided in response to ExA Q1.10.93 [REP2-037] regarding the traffic surveys carried out in July 2022 which identifies a low number of HGVs to currently travel along La Hogue Road.
1u	Grid connection route No details have been provided of the internal routes within the site that may be used during the construction or operational phase, or how turning at associated junctions may affect the required access arrangement. Failure to provide sufficient information will result in inappropriate assessment of the proposals and potential for unsuitable access arrangements to the significant detriment to highway safety.	The information provided is proportional to the stage of the project. The Traffic Regulation Measures Plans – Temporary Measures and the Traffic Regulation Plans – Road Closures [REP2-010, REP2-011] (updated versions of these plans were submitted at Deadline 2) identify temporary road closures and temporary traffic signals to be used for vehicles to cross the highway when constructing the cable corridor. The peak number of daily HGVs is presented within paragraph 5.4.20 of the Transport Assessment [APP-117] which states that a maximum of 23 daily HGVs are forecast across all cable route accesses. Whilst it is not possible to provide a granular forecast for each individual cable route access at this stage of the project, it is clear from the daily maximum that the individual access daily maxima will be of a low level. The detail design of the site accesses is subject to the approval of the relevant planning authorities in accordance with requirement 6 in Schedule 2 to the draft DCO.
1v	Damage to Highways Many of the roads approaching individual sites (such as the droves)	Chapter 7 (paragraph 7.2.14) of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] includes a requirement to undertake conditional surveys before, during and after construction to identify damage caused by the construction of the scheme, and to remediate such damages. The survey specification and list of highways to be monitored as

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	are of unknown construction and it is unclear whether the structure is sufficient to withstand intensive heavy loading of the works proposed. Failure to have appropriate measures in place to protect or maintain the road surface may result in premature degradation, risking potholing with significant detriment to highway safety.	part of the conditional surveys will be agreed with the local highway authority as part of seeking approval of the relevant county authorities of the Construction Traffic Management Plan under requirement 16 of the draft DCO. Where the pre-condition survey identifies that there would be a benefit to having appropriate measures in place to protect or maintain the condition of the road surface, to reduce the likelihood of damage caused by construction vehicles, the applicant will enter discussions with the LHA on this matter. The information provided in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] is proportional to the stage of the project.
1w	Road Safety Audit The Road Safety Audit provided in the application does not appear to have been submitted by or to the Local Highway Authority or had its brief or designers' response reviewed by them as the Overseeing Organisation. Its validity is therefore questionable, and it is not clear whether the hazard to highway safety has been adequately resolved.	The Stage 1 Road Safety Audit was undertaken at the request of the local highway authority. The Stage 1 Road Safety Audit was undertaken and is compliant with DMRB GG119. A summary of the Stage 1 Road Safety Audit is provided in chapter 5 of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. The issue identified with the Stage 1 Road Safety Audit relates to slow moving HGVs turning from the site access and vehicles travelling northbound on Newmarket Road. The recommendation was to provide warning signs along Newmarket Road to warn motorists of the site access and HGVs turning. It was recommended at the detailed design stage a suitable clear warning signage strategy is designed to ensure that drivers joining Newmarket Road from the A11 are aware of the construction access and potential for slow turning vehicles. It is also advised that the signage is provided as a 'gateway' on entry to Newmarket Road so that it is clearly seen by both right turning and left turning traffic from the A11. The Applicant is committed to the recommendations. This will be further clarified in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan the Applicant will submit at a Deadline 3. The brief and audit 'problem' is provided within Annex E of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301].
	Policy Context	
13.9-13.43	Policy Context	The Applicant notes the review of Policy in the Local Impact Report. There are limited comments made with regards to the compliance of the proposed scheme with Policy. These include the Councils' views on the Transport Assessment and Travel Plan in general terms, which are reported in specific terms elsewhere in the documentation. The Applicant's response to these specific comments are included within the corresponding sections of this response.

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	Construction Phase Impacts	
13.46	*Reduced capacity*	The construction of the scheme will result in additional traffic on the local highway network during the construction period. The impact on the local highway network will therefore be a short term and temporary impact. As part of the embedded mitigation for the scheme, the construction staff will travel to / from the site outside of the highway network peak hours in order to avoid peak time capacity impacts, representing an efficient use of the highways network. Furthermore, it should be clarified that "reduced capacity" is not in itself a significant impact. It is accepted that adding traffic to the network will result in a reduced level of spare capacity, however this does not represent a severe impact if the junction in question is forecast to operate within capacity and/or the scale of impact of the development traffic is not significant. The following rows address the bullet points that follow in paragraph 3.46 of the Local Impact Report, which have been re-ordered to follow the themes of: • Reduced capacity; • Reduced amenity and increased fear and intimidation; • Increased severance and reduced amenity for Non-Motorised Users (NMUs); • Very limited potential for sustainable transport patterns; and • Reduced road safety.
13.46	Reduced capacity at the Red Lodge Dumbbell roundabouts	As set out in the Transport Assessment [APP-117], the 'Forest Heath Site Allocation Plan Cumulative Impact Study' indicates that the Red Lodge Dumbbell Roundabouts are forecast to operate within capacity at between 40% to 50% of capacity in 2031 in the AM and PM network peak hours including the background growth in traffic flows that would occur between the Sunnica assessment year of 2023 and 2031. The 2023 highway network peak hour (08:00-09:00 and 17:00-18:00) flows are forecast to be higher than the 2023 development peak hour flows with the additional construction traffic. The 2031 network peak hours traffic flows are therefore higher than the 2023 development peak hour traffic flows where the Red Lodge Dumbbell Roundabouts are forecast to operate within capacity. Therefore, it is considered that the Dumbbell Roundabouts have enough residual capacity, which includes queuing, to operate

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		efficiently with the additional staff vehicles between 06:00-07:00 and 19:00-20:00 during 2023 given the residual capacity at the roundabouts.
13.46	Reduced capacity at the B1506 Bury Road / Herringswell Road priority junction	Junction capacity modelling has been undertaken for the B1506 Bury Road / Herringswell Road / Gazeley Road junction using Junctions 9 software to assess how the junction will operate in 2023 with the additional construction staff vehicles. This is set out in the Link Sensitivity Technical Note, which is Appended to this document. The junction model was set up to provide a worst-case scenario of the junction operation. As no topographical survey data was available, Google Maps has been used to measure the geometry of the junction which were rounded down to ensure that the modelling was robust. The traffic flows used in the junctions model were derived by combining the 2023 base traffic flows at this junction which are presented in Annex C of the Transport Assessment [APP-117] with the development construction traffic flows presented in Annex F of the Transport Assessment [APP-117] for this junction. The junction modelling indicates that the junction is forecast to operate significantly within capacity with a maximum Ratio Flow Capacity (RFC) of 0.29 (0.85 is the recommended maximum) in 2023 with the additional construction traffic. The junction modelling indicates that the increase in right turning traffic from the B1506 Bury Road into Herringswell Road in 2023 due to the construction of the scheme is not forecast to cause this junction to operate over capacity or cause large queuing and delays.
13.46	Reduced capacity at the A14 / A142 (Junction 37)	The 2023 traffic flows during the development peak hours (06:00-07:00 and 19:00-20:00) with the construction staff vehicles at the A14 / A142 (Junction 37) are forecast to be lower than the highway network peak hour (08:00-09:00 and 17:00-18:00) traffic flows where it is known to operate within capacity at present. This is shown in Table 13-29 and Table 13-30 in the Transport and Access chapter of the ES [APP-045]. Therefore, it is considered that the A14 / A142 (Junction 37) will operate within capacity. A further in-depth review of the Personal Injury Collision (PIC) data was undertaken for the A14 J37 which is detailed in Section 9 of the Transportation Technical Note [REP2-041] submitted at Deadline 2. It shows that the PIC data does not indicate an underlying safety issue that could result in a requirement on the Sunnica development to provide highways safety mitigation in this location.

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		In addition, the Local Highway Authorities have an agreed safety scheme for this junction as part of the Hatchfield Farm planning application (planning application reference: C/13/0408/OUT). The proposals include the signalisation of the A14 Westbound Off-Slip /A142 T-Junction and the A14 Eastbound off-Slip / A142 T-Junction. Both the A14 Westbound and Eastbound On-Slips T-Junctions are not proposed to be signalised. The outline planning application for the part signalisation of the A14 Junction 37 was approved in March 2020. The proposals are expected to improve the safety of the A14 Westbound Off-Slip T-Junction. The signalisation of the A14 Westbound Off-Slip T-Junction results in vehicles not having to wait for gaps in the traffic along the A142. A right turn ghost island is currently provided on the A142 for vehicles waiting to turn onto the A14 Eastbound On-Slip. As part of the proposals the A14 Eastbound On-Slip is not included within the signalisation. However, as a result of the signalisation of the A14 Eastbound Off-Slip / A142 T-junction, it would be expected that gaps in the traffic will be created for vehicles to turn right onto the A14 Eastbound On-Slip. As the junction improvements are expected to improve safety and operation at the A14 junction, the development related vehicles will benefit as a result of the improvements, although, as set out above, there is no requirement on the Sunnica development for there to be highways safety mitigation implemented in this location.
13.46	Reduced capacity at the A142 / Landwade Road roundabout junction	The 2023 traffic flows during the development peak hours (06:00-07:00 and 19:00-20:00) with the construction staff vehicles at the A142 / Landwade Road roundabout are forecast to be lower than the highway network peak hour (08:00-09:00 and 17:00-18:00) traffic flows. This is set out in Table 13-29 and Table 13-30 in the Transport and Access Chapter of the ES [APP-045]. Therefore, it is considered that the A142 / Landwade Road roundabout will operate within capacity, as it is known to operate within capacity at present during network peak hours.
13.46	*Reduced amenity and increased fear and intimidation*	
13.46	Reduced amenity and increased fear and intimidation on Elms Road, as a result of increased staff movements and increased HGV movements, on NMUs, particularly cyclists. Potentially resulting in reduced walking and cycling with negative implications on health and wellbeing.	NMU survey data was collected for Elms Road in July 2022 which is detailed in Section 10 of the Transportation Technical Note [REP2-041] which was submitted at Deadline 2. The 2022 survey data indicates that on an average weekday there are five two-way pedestrian movements, three two-way cycle movements and one two-way equestrian movement across the day. There was no NMU activity recorded during the times that construction staff will be travelling to/from the site (06:00-07:00 and 19:00-20:00). There is not considered to be a NMU desire line along Elms Road at these times of day due to the lack of origins and destinations along this route, as borne out by the data.

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		The forecast maximum daily HGV movements on Elms Road during the construction period is 22 HGVs, which is set out in Table 6-3 of the TA [APP-117]. This equates to approximately two HGVs an hour over a 10-hour delivery window. In combination with the low existing levels of NMUs on Elms Road, the Proposed Development is not anticipated to have a significant impact on pedestrian and cycle amenity and fear and intimidation on Elms Road during construction.
13.46	*Increased severance and reduced amenity for NMUs*	
13.46	Increased severance and reduced amenity for NMUs on Turnpike Road through Red Lodge.	As set out in Table 13-31 of the Transport and Access Chapter of the ES [APP-045], Turnpike Road is forecast to experience a minor adverse effect in terms of severance, pedestrian delay, pedestrian / cycle amenity and fear and intimidation in relation to the increase of construction traffic during the AM development peak hour. This will be a short-term effect and is not significant in EIA terms. In the PM peak hour, there is forecast to be a negligible effect in terms of severance, pedestrian delay, pedestrian / cycle amenity and fear and intimidation.
13.46	Increased severance and reduced amenity for NMUs on Warren Road through Red Lodge.	As set out in paragraph 13.8.236 of the Transport and Access Chapter of the ES [APP-045], Warren Road is forecast to experience a minor adverse effect in terms of severance, pedestrian delay, pedestrian / cycle amenity and fear and intimidation in relation to the increase of construction traffic during the AM development peak hour. This will be a short-term effect and is not significant in EIA terms. In the PM peak hour, there is forecast to be a negligible effect in terms of severance, pedestrian delay, pedestrian / cycle amenity and fear and intimidation.
13.46	Increased severance and reduced amenity on B1506 Bury Road and Herringswell Road in Kentford. Potentially resulting in reduced walking and cycling with negative implications on health and wellbeing.	As set out in paragraph 13.8.60 of the Transport and Access Chapter of the ES [APP-045], Herringswell Road is forecast to experience a minor adverse effect in terms of severance, pedestrian delay, pedestrian / cycle amenity and fear and intimidation in relation to the increase of construction traffic during the PM development peak hour. This will be a short-term effect and is not significant in EIA terms.
13.46	*Very limited potential for sustainable transport patterns*	
13.46	Very limited potential for sustainable transport patterns resulting in	Due to the nature and scale of the proposed development, the site is necessarily located in a very rural area, with associated limited access to public transport. In order to minimise the number of staff vehicles travelling to/from the site, the applicant will implement measures to

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	increased carbon emissions associated with staff transport.	maximise the numbers of staff that lift share with colleagues. As identified in Chapter 7 of the Framework Construction Traffic Management Plan and Travel Plan (F-CTMP & TP) [AS-300, AS-301], supporting car sharing and use of a minibus will form the basis of improving the sustainability of staff transport. The full TP will be developed when there is greater knowledge of staff locations and characteristics, as is typical.
13.46	*Reduced road safety*	
13.46	Reduced road safety as a result of increased turning movements at the site accesses.	The Traffic Regulations Measures Plans – Temporary Measures [REP2-010, REP2-011] identify the proposed temporary speed limit and traffic signals which are to be used during the construction period to provide safe entry and egress of the site accesses. In addition, signage will be provided to warn motorists of the upcoming site accesses and construction traffic.
13.48	*Traffic Impacts*	
	No assessment has been undertaken of traffic impacts on a Saturday	It is understood that the foundation of the LHA's concern is a misunderstanding that Saturday working hours are 07:00-13:00, resulting in the potential for an additional effect of construction staff leaving the site at a time when baseline traffic could be higher than at 19:00-20:00 on a weekday. This has been discussed with the LHAs. The construction working hours on a Saturday are 07:00-19:00. Construction staff will travel to / from the site between 06:00-07:00 and 19:00-20:00. A comparison of the Saturday traffic flows, and weekday average traffic flows was undertaken for the additional 2022 traffic survey locations where such data is available. During the survey period, the Saturday traffic flows are lower than weekday traffic flows. Therefore, the use of weekday traffic flows is considered to be robust for the purposes of the Transport and Access assessment within the ES [APP-045] and the TA [APP-117]. Further details on the review of the need for a Saturday assessment are provided in the Section 4 of Transportation Technical Note [REP2-041] submitted at Deadline 2. This shows that there would not be additional construction impacts on a Saturday, and therefore no detailed Saturday assessment is required.
13.49-13.54	*Heavy Goods Vehicles (HGV) Movements*	

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13.49	Control of HGV routes Details of the internal site layout Management of disruptions to the public highway and PRoWs	The information provided is proportional to the stage of the project. At this stage of the project, the internal site layout has not been designed in detail. It will be designed in order to accommodate the operational requirements of the level of vehicle traffic forecast within the site. Further clarification and details on the management of the PRoW closures are provided in the Transportation Technical Note [REP2-041] submitted at Deadline 2.
13.50-13.51	HGV numbers and materials required	The information provided is proportional to the stage of the project. Through the post-submission meetings, the LHAs requested confirmation that the HGV construction numbers included aggregate/concrete for haul roads, which the Applicant subsequently confirmed. The number of HGVs required throughout the construction period has been provided in Table 6-3 of the Transport Assessment [APP-117]. The HGV numbers for the construction period have been provided by an appropriately experienced contractor, and is based on all activities required to deliver the project. Within the HGV numbers the following has been considered which includes aggregate / concrete for haul roads: • Materials, Plant and Components Delivery • Bulk Materials Delivery / Removal • Concrete Delivery • Personnel Transportation • Fuel delivery • Water Delivery (Potable) • Waste Collection • Sewage and Greywater Collection • Craneage • Low Loaders.

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13.52	Removal of temporary construction works and related HGVs at the end of the construction period	The Transport and Access chapter of the ES [APP-045] assesses the worst-case scenario in terms of trip generation at the peak of the construction period. This is standard practice for an EIA. The removal of temporary works will occur at a time where there is a significantly lower level of other activities associated with the construction phase. The HGV profile for the entire construction period for the Proposed Development is set out in Table 6-3 of the Transport Assessment [APP-117].
13.53-13.54	Assumptions for calculating construction traffic	The Transport and Access Chapter in the ES [APP-045] has set out the number of daily HGVs for each construction month throughout the two-year construction programme in Table 6-3. The HGV calculations include the following: • Materials, Plant and Components Delivery • Bulk Materials Delivery / Removal • Concrete Delivery • Personnel Transportation • Fuel delivery • Water Delivery (Potable) • Waste Collection • Sewage and Greywater Collection • Craneage • Low Loaders. The information used to calculate the construction traffic generated by the project has been provided by a suitably experienced contractor. The assessment is of the worst-case peak in the construction phase, which will occur for a short period of time, and is therefore robust. The HGV profile over the construction period is shown in the graph in Plate 1 of the Transport Assessment [APP-117].
13.55-13.60	*Abnormal Indivisible Load (AIL) movements*	

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13.55-13.59	Impact of AILs Inspection of structures along route from port may change the capacity of structures AIL routes	The construction routes proposed are in line with the weight restrictions for the local highway. Where there are no weight restrictions in place, the public highway is available for use by legal and roadworthy vehicles. It is the responsibility of the Local Highway Authority, and not the Applicant, to identify vulnerable structures on the existing public highway where there are not current weight restrictions, and introduce such weight restrictions as required. The F-CTMP [AS-300] at paragraph 7.2.14 includes the provision for undertaking highways condition surveys before, during, and after construction, and making good any damage caused as a result of construction vehicle trips. A weight restriction was identified on the bridge on Freckenham Road / Isleham Road junction. Therefore, an alternative vehicle route for the Abnormal Indivisible Load (AIL) was identified which avoids the bridge. The swept path analysis for the Ferry Lane (Freckenham Road) / Isleham Road junction is provided within Figure 29 in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] and the vehicle routes avoid the bridge with the weight limit. As part of the AIL route review prior to transporting the AIL, conditional surveys would be undertaken at all necessary locations along the vehicle route. An experienced haulier who specialises in AILs would be responsible for the final route and coordination with the relevant authorities e.g., the police and the local highway authorities. The haulier will identify potential measures to limit or avoid damages, such as temporarily strengthening the footways that are required to be overrun by the AIL, in consultation with the local highway authority. The obligation on the undertaker to carry out the conditional surveys is secured by paragraph 7.2.14 of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301], compliance with which is secured by requirement 16 contained in Schedule 2 to the draft DCO. The Applicant has reviewed information provided on the National Grid website in reference to the new transformer being transported from Ipswich docks to the National Grid Burwell substation. This demonstrates the movement of AILs to the National Grid Burwell substation via the local highway network is possible. The route described matches the route assessed as part of the route review provided within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] from the A14 J37 to the Burwell Substation. This route includes the A142, B1102, High Street, Reach Road and Weirs Drove (noting that the information on the National Grid website refers to 'Weirs Drove' as 'Weirs Road'). The confirmation that National

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		Grid delivered a new transformer from Ipswich Docks to the National Grid Burwell substation provides reassurance that the AIL can be accommodated on the local highway network.
13.60	Highway boundary data	The DCO affords the powers required by the applicant to undertake necessary works within both the highway and on private land, where it is included within the Order Limits. Where AIL tracking, presented in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301], has identified a requirement to undertake works at relevant junctions, it is ensured that these works are included within the Order Limits. Land ownership boundary information from His Majesty's Land Registry has been used for the purpose of identifying interests in the land contained within the Order limits. A site visit was undertaken to take on-site measurements to check the accuracy of OS mapping at several site accesses. The on-site measurement is provided in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposed to submit in Deadline 3. As such, the Applicant is confident that, if the DCO is made, there would be no material impediments to the delivery of scheme components by abnormal vehicles.
13.61-13.67	*Site Accesses*	The Applicant proposes to provide updates to the site access drawings as part of the next iteration of the Framework Construction Traffic Management Plan and Travel Plan which will be submitted at Deadline 3A and will replace Annex C [AS-300, AS-301]. The Applicant is keen to work with the local highway authorities to resolve the concerns regarding the site accesses.
13.61-13.63	More information required to sufficiently judge proposals Site access plans presentation (orientation, clarity, location) Use of ordnance survey data Maintenance of accesses	The Applicant respectfully disagrees with the Council's position that sufficient information has not been provided. Notwithstanding this, we have been working towards signposting and clarifying a number of points, with the aim of reaching agreement. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground. To enable this, a draft set of site access drawings has been prepared and provided to the LHAs.

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		The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. A summary of the information provided on the drawings for each access includes: • Location and intended use in construction and/or operational phases; • Scale provided on each individual drawing; • North arrow on each individual drawing; • Identified if the base mapping is either topographical or Ordnance Survey (OS) on each individual drawing; • On-site measurements recorded during site visit; • Swept path analysis for vehicle types including large cars, HGVs, a 1000T crane and a 46.63m AIL; • Indicative site access layouts including dimensions; • Visibility splay for the main staff access during the operational period; • Summary of the site access use during the construction period in terms of HGVs; • Reference to the Traffic Regulation Measures Plans – Road Closures and Temporary Traffic Regulation Measures Plans - Temporary Measures) [REP2-007 to REP2-011 inclusive]; • Summary of the proposed temporary traffic signals and the achievable visibility splay during the use of the temporary traffic signals; • Included the Order Limits; and • Identified Highway Works on Elms Road and La Hogue Road to accommodate two-way HGV movements.
13.64-13.67	Road safety audits for site accesses Site photographs taken in the winter	The Applicant is aligned with the local highway authorities views on the importance of providing safe and suitable access. However, it is not considered appropriate or necessary at this stage of the project to undertake Stage 1 Road Safety Audits for every site access at this stage of design,

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	Traffic management at accesses	except where there is a potential specific issue requiring investigation, as per Access I on Newmarket Road (located between A1 and Golf Links Road). Road Safety Audits can and will be undertaken, and issues addressed, at the detailed design stage. Ongoing discussions regarding the preliminary design of the site accesses are noted, and it would not be appropriate to have undertaken Road Safety Audit on junction layouts prior to them having been agreed in principle with the local highway authorities regarding the site accesses. The Traffic Regulation Measures Plans – Temporary Measures [REP2-010 and REP2-011] identifies the proposed access strategy with temporary traffic signals and temporary speed limit reductions to provide safe entry and egress in/out of the construction site accesses in order to protect the highway users at the site accesses. Therefore, the vegetation will be trimmed to an appropriate amount to provide access to/out of the site accesses throughout the construction period. A Stage 1 Road Safety Audit was carried out at the request of the local highway authority and the results are provided within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. The Stage 1 Road Safety Audit was carried out to the DMRB GG119 guidance's and identified that a signage strategy should be provided to warn motorists of the construction site access which is located on Newmarket Road. The Applicant is committed to providing the signage strategy in line with the recommendations within the Stage 1 Road Safety Audit. The achievable visibility splay of the proposed site access will be presented within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. In addition, National Highways have agreed to development related vehicles using the A11/Newmarket Road junction, with development related vehicles only permitted to turn left in / left out at the junction. A site visit was undertaken in August 2022 to review the site accesses when the vegetation is considered to be at its most prevalent as per the comment raised. Information resulting from the highway measurements undertaken during the site visit will be provided within the Framework Construction Traffic Management Plan and Travel Plan that the Applicant proposes to submit at a Deadline 3. The vehicle routes are identified within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] which identify the proposed vehicle routes that the construction vehicles will follow.
13.68-13.73	*Highway Safety*	

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13.68-13.69	A11/A1101/A1065 Fiveways Roundabout, Mildenhall	Comments regarding recent highways safety improvements, and a potential further Roads Investment Strategy 3 (RIS3) large scale improvement are noted but do not require comment from the Applicant.
13.70	Construction of improvements at A11 Red Lodge to Mildenhall (Fiveways) may impact construction vehicle routes	It is noted the improvements refer to the closing of a number of gaps in the central reserve for safety reasons. The HGV routes identified within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] do not use any gaps in the central reserve. In addition, consultation with National Highways was undertaken regarding the use of the A11/Newmarket Road junction near to Golf Links Road. National Highways agreed to construction related vehicles turning left in and left out at the A11/Newmarket Road junction and not right turns which would use the gap in the central reserve. In relation tothe comment regarding the gap closure scheme not addressing the existing sub optimal slip roads; this is an existing concern and not one that the Applicant is responsible for, nor will it be exacerbated by, the Proposed Development.
13.71	Safety concerns at the A11 Northbound off-slip / Elms Road junction	The Personal Injury Collision (PIC) analysis presented in section 3.5 of the Transport Assessment [APP-117] does not indicate an underlying highways safety issue in this location. Whilst SCC refers to periodic complaints of near misses, it is not clear from the comment the frequency or nature of such complaints and therefore the Applicant cannot respond to the specifics of this statement. Notwithstanding this, the underlying concern in paragraph 13.71 is that construction traffic would cause delay, which could lead to drivers taking greater chances and choosing smaller gaps, increasing the likelihood of collisions. A junction capacity assessment has been undertaken at the A11 Northbound off-slip / Elms Road T-Junction which is presented in Section 4 of Transportation Technical Note [REP2-041] submitted at Deadline 2 and no capacity issues were identified with the junction forecast to operate well within capacity within the development peak hours between 06:00-07:00 and 19:00-20:00. Therefore, this concern has been investigated and it is demonstrated that the construction phase would not lead to capacity issues or safety concerns at this junction.
13.72	Safety concerns for Access I	A Stage 1 Road Safety Audit was carried out at the request of the local highway authority and a summary is provided within the Framework Construction Traffic Management Plan and Travel

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		Plan [AS-300, AS-301]. The Stage 1 Road Safety Audit was carried out to the DMRB GG119 guidance's and identified that a signage strategy should be provided to warn motorists of the construction site access which is located on Newmarket Road. The Applicant is committed to providing the signage strategy in line with the recommendations within the Stage 1 Road Safety Audit – see paragraph 5.11.4 of the Framework Construction Traffic Management Plan and Travel Plan. The achievable visibility splay of the proposed site access is presented within Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. This would result in a departure of one step below the desired minimum visibility however it is considered appropriate in line with the access strategy proposed for the site access on Newmarket Road. In addition, National Highways have agreed to development related vehicles using the A11/Newmarket Road junction, with development related vehicles only permitted to turn left in / left out at the junction.
13.73	Further investigation into incidents at the B1102 Freckenham Road/The Street junction required.	Section 3.5 of the Transport Assessment [APP-117] indicates that two incidents involving cyclists (one fatal and one serious incident) occurred at the B1102 Freckenham Road/ The Street junction between 2014 and 2019. The contributory factors that are listed in the incident report for these collisions both include Driver/Rider error or reaction. However one incident also lists a contributory factor of impairment or distraction and second incident lists contributory factors of behaviour or inexperience and injudicious action. Two incidents over a five-year period does not suggest a cluster or pattern of incidents.
13.74-13.82	*Highway Improvements*	
13.74-13.79	The proposed 5.5m widening of Elms Road and La Hogue Road is not considered sufficient.	A draft set of site access drawings has been prepared and provided to the LHAs. The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. The Drawings identify sections of Elms Road and La Hogue Road to be widened up to 7.2m width is based on swept path analysis of two HGVs passing another. Through consultation with the local highway authorities, it is the Applicant's understanding that the local highway authorities concern was the localised widening would be limited to widening the carriageway to 5.5m. The

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		indicative highway works identified in Annex C of the Framework Construction Traffic Management Plan and Travel Plan, which the Applicant proposes to submit at a Deadline 3A, identify that the widening will be greater than 5.5m to accommodate two-way HGV movements. The swept path analysis of the two 16.5m articulated HGVs passing one another takes into consideration the passing of wingmirrors, local characteristics such as the verge, vegetation, trees and telephone poles as well as on site observations when identifying the locations of the indicative highway works along Elms Road and La Hogue Road. The locations of these indicative highway works are within the Order Limits. Paragraph 7.2.14 of the F-CTMP & TP [AS-300, AS-301] identifies that the Applicant will undertake highway conditional surveys before, during and after the construction to identify any impacts which are a result of the development that need to be remediated. That paragraph also provides that the exact roads are to be agreed with the local highway authorities in advance of construction.
13.80-13.81	Vegetation clearance works	The Local Impact Report correctly refers to inclusions of small areas of order limits away from the main sites. The purpose of the inclusion of these areas is set out clearly in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. Their inclusion is to enable localised and temporary works to be undertaken to facilitate the safe passage of Abnormal Indivisible Loads. The following works will be required to enable safe passage of Abnormal Indivisible Loads as detailed in Chapter 5 of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]: • At the bend on the B1102 The Street / Mildenhall Road junction (which is identified on sheet 21 of the ARoW Plans as AS-36): vegetation clearance (branch trimming) of the tree located within the centre of the junction may be required to allow AIL to navigate the junction but the vehicle will remain within the bounds of the highway. • At the B1102 Mildenhall Road/Ferry Lane junction (which is identified on sheet 21 of the ARoW Plans as AS-37) the AIL trailer will over sail the inside verge by approximately 4.3m and over sail private land. This will require the existing private fence/gate to be removed or relocated as well as some minor vegetation clearance to facilitate the manoeuvre. • At the Beck Road / Ferry Lane junction (which is identified on sheet 4 of the ARoW Plans as AS-5) the AIL trailer will over sail the inside verge by approximately 2m. This will require the temporary removal or relocation of two existing road signs. There may also be a requirement

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		to clear vegetation (branch trimming) to facilitate access but the vehicle will remain within the bounds of the highway. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development. In addition, vegetation removal is a "permitted preliminary work" and no phase of those works may begin until a permitted preliminary works traffic management plan has been submitted to and approved by the relevant county authority (or authorities). In relation to other works, it is important to note that detailed design of, among other matters, the site accesses is subject to the approval of the relevant planning authority under requirement 6 in Schedule 2 to the DCO.
13.82	Small radii or splays at junctions	The indicative layouts of the site accesses are based on swept path analysis of a 16.5m articulated HGV. Therefore, the radii provided at this stage of the project is considered appropriate as the largest vehicle that will typically travel to/from the site on a daily basis. It is noted that the AILs are larger than the 16.5m articulated HGV however these will not access the site on a regular basis. Where "small" radii (assumed to be less than 6m) are identified there are no vehicles forecast to arrive or depart the site access in that direction as it does not follow the vehicle routes identified within the Framework Construction Traffic Management Plan and Travel Plan [APP-300, APP-301].
13.83-13.85	*Strategic Road Network (SRN) and Regional Network*	
13.83-13.85	A14 Junction 37 'Boomerang' Movement	A further review has been undertaken on the PIC data for the A14 Junction 37, focusing on the incidents that were identified to have occurred whilst undertaking part of the 'Boomerang' movement. These movements include the right turn movement from the A14 westbound off slip and the right turn movement from the A142 to the A14 eastbound on slip. Overall, the data does not indicate an underlying safety issue which would be exacerbated by the Proposed Development, and therefore mitigation is not required. In addition, the Applicant has also investigated the partial signalisation of the junction proposed as part of the Hatchfield Farm development, as referenced by SCC. It is noted that the aforementioned scheme is likely to improve the operation and safety at this junction, which will be of benefit to future users of the network. However it is re-iterated that these junction works are not required by the Sunnica Development.

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		Further details on these reviews is provided in the Transportation Technical Note [REP2-041] submitted at Deadline 2. The HGV routes are identified within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] in Figure 4 to Figure 9. These routes identify the HGVs using the A11 and A14 to access the local roads in which the site accesses are located. The cross-country route referenced in 13.84 is not included within the HGV routeing plans.
13.86-13.89	*Damage Through Exceptional Use*	
13.86-13.89	Damage to the local roads due to the scheme construction HGV traffic	The Applicant acknowledges these statements which reflect the Framework Construction Traffic Management Plan [AS-300] which at paragraph 7.2.14 includes the provision for undertaking highways condition surveys before, during, and after construction, and making good any damage caused as a result of construction vehicle trips.
	Operational Phase Impacts	
13.92	*Traffic Impacts*	
13.92	Replacement of solar panels	Chapter 3: Scheme Description, of the Environmental Statement [APP-035] sets out at paragraph 3.2.4 that the operational life of the Scheme is 40 years. As set out by paragraph 6.3.23 of Chapter 6: Climate Change of the Environmental Statement [APP-038], an indicative solar PV module type has been considered, which would have a warranty covering the first 30 years. The paragraph goes on to explain that PV panel degradation over time (from 0-40 years) has also been factored into calculations for the performance of the Solar PV modules in assessing the climate change impact of the Scheme. It would not be an efficient use of resources to arbitrarily require the decommissioning of an operational solar farm after 25 years, which would be 15 years before the end of its design life and 5 years before the end of the warranty period for the solar PV arrays. Therefore, no wholesale replacement of solar PV arrays is anticipated. In any case, the DCO application seeks authorisation to construct, operate and maintain the Sunnica Energy Farm. Article 2 of the draft DCO [APP-019] defines the meaning of "maintain" in the draft DCO. This sets out that the definition does not include removal, reconstruction or replacement of the whole of the authorised development. Article 5(3) of the draft Development Consent Order [APP-019] also sets out that the carrying out of any maintenance works which are likely to give rise to any materially new or materially different

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		effects that have not been assessed in the Environmental Statement would not be authorised. Therefore, the substantial replacement of solar array equipment would not be authorised by the DCO if it would lead to any materially new or materially different effects to those assessed by the Environmental Statement, including operational impacts on themes such as Traffic and Transport and Socio-economics.
13.93-13.113	*Site Accesses*	
13.93	Vegetation clearance	The likely significant environmental effects to ecology and nature conservation and to flood risk, drainage and water resources have been assessed in the Environmental Statement at Chapters 8 [APP-040] and Chapter 9 [APP-041] respectively. For the benefit of the authorities, the extent of the vegetation clearance required at site accesses is also being further highlighted on the package of site access drawings which will be updated to supersede Annex C in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit in Deadline 3A. It should be noted that the Applicant's site access strategy has been to use temporary traffic regulation measures to ensure safe access to the site during the construction period so as to avoid the adverse ecological effects associated with clearing extensive visibility splays.
13.94-13.95	Replacement of solar panels	As stated in the response to paragraph 13.92, no wholesale replacement of solar PV arrays is anticipated. In any case, the substantial replacement of solar array equipment would not be authorised by the DCO if it would lead to any materially new or materially different effects to those assessed by the Environmental Statement, including operational impacts on themes such as Traffic and Transport.
13.96-13.100	Access I, Access J and Access H	Following the pre-application consultation process the need for HGVs to travel along Golf Links Road has been removed during the construction period. HGVs are not required along Golf Links Road during the operational period and maintenance will be undertaken using smaller vehicles during the operational phase, if and when required. An update to the site access drawings are being prepared to be provided in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A.

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13.101-13.104 13.108-13.109	Site access plans and visibility splays Use of Ordnance Survey data HGV swept path analysis Public highway, DCO boundary and visibility splays on site access plans Removal of vegetation at site accesses	The Applicant respectfully disagrees with the Council's position that sufficient information has not been provided. Notwithstanding this, we have been working towards signposting and clarifying a number of points, with the aim of reaching agreement. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground. To enable this, a draft set of site access drawings has been prepared and provided to the LHAs. The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. A summary of the information provided on the draft set of drawings includes: • Scale provided on each individual drawing; • North arrow on each individual drawing; • Identified if the base mapping is either topographical or Ordnance Survey (OS) on each individual drawing; • On-site measurements recorded during site visit; • Swept path analysis for vehicle types including large cars, HGVs, a 1000T crane and a 46.63m AIL; • Indicative site access layouts including dimensions; • Visibility splay for the main staff access during the operational period; • Summary of the site access use during the construction period in terms of HGVs; • Reference make to the Traffic Regulation Measures Plans – Road Closures and Temporary Traffic Regulation Measures Plans - Temporary Measures) [APP-009 to APP-013]; • Summary of the proposed temporary traffic signals and the achievable visibility splay during the use of the temporary traffic signals;

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		• Included the Order Limits; and • Identified Highway Works on Elms Road and La Hogue Road to accommodate two-way HGV movements.
13.101	Detailed design of the junctions left to CTMP. Visibility splays	It is entirely appropriate, and indeed standard practice, for detailed elements of design to be undertaken post-application. Whilst it is noted that there remain points of disagreement between the Applicant and the Highways Authorities, which we are seeking to resolve through proactively and constructively engaging with the Authorities, the purpose of this stage is to demonstrate that safe and suitable access is feasible and deliverable, and that associated impacts are assessed. It is the Applicant's position that the stage of design presented is suitable to achieve this. The temporary traffic management identified within the Traffic Regulation Measures Plans [REP2-007 to REP2-011] (which were updated at Deadline 2 to reflect a minor contraction of the Order limits) identify the proposed access strategy for the site accesses. The provision of the temporary traffic signals and speed limit reductions are in-lieu of providing the full visibility splays as this could result in excess vegetation loss which would be inappropriate and not in proportion to the timeframe the site accesses are proposed to be used during the construction period. The site access drawings will be updated as part of the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] the Applicant proposes to submit at Deadline 3A.
13.105	Two-way HGV movements at site accesses	It is correct that the access widths are based on a single vehicle movement. This is appropriate as to design for multiple movements to occur simultaneously would result in a greater level of environmental impact which is above and beyond a reasonable worst-case scenario, particularly in terms of vegetation clearance. Accesses and deliveries will be managed to ensure that movements will not occur simultaneously. As set out in paragraph 7.2.2 of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] a Delivery Management System will be implemented to control bookings of HGV deliveries from the start of the construction period. This will be used to effectively plan all HGV deliveries in accordance with the construction programme, regulate the flow of HGVs via timed delivery slots and monitor compliance of HGV routeing. This will be managed appropriately so movements will not occur simultaneously.

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		Data on forecast peak HGV usage of accesses during construction is included in Table 6-3 of the Transport Assessment [APP-117]. It is noted that the number of HGVs forecast for each cable route access is not provided. However, it is set out at paragraph 5.4.20 in the Transport Assessment that a maximum of 23 HGVs is forecast across all cable route accesses, demonstrating a low level of usage. Furthermore, at the peak of the construction phase, the largest number of HGV movements at any one access point will be 48 per day at Sunnica West Site A: Access A This represents a low number, meaning that simultaneous movements at access junctions are both unlikely and easy to manage. In practice, in the highly unlikely event that two vehicles reach the access at the same time, the outbound vehicle will wait in the site for the inbound vehicle to pass. This means that the inbound vehicle will not need to wait in the highway. The Applicant will add further clarification on this point to an updated Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit in Deadline 3.
13.106	Site access junction radii	A key principle in designing the site access junctions has been to avoid unnecessary vegetation clearance or provision of areas of hardstanding, particularly where the use of the access is temporary, i.e. just during the construction phase, in order to limit environmental impacts of the scheme. This includes avoiding providing large, and therefore inappropriate, offside radii where not required to accommodate turning movements. The local highway authorities note that it is likely to be no flow in the direction where a small radii is identified at the site access. That is a correct assumption as this is in line with the vehicle routes established within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] and secured through the provisions of the DCO. The HGVs will follow the routes identified and therefore there would be no instances in which HGVs would turn in via the small radii. Appropriate radii have been provided at site access junctions to accommodate all movements required by the HGV routes. The HGV routes are provided in the Transport Assessment [APP-117] and an update to the indicative site access layouts are proposed to be provided in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] the Applicant proposes to submit at Deadline 3A.
13.107	Site access I visibility	The provision of the temporary traffic signals and speed limit reductions are in-lieu of providing the full visibility splays as this could result in excess vegetation loss which would be inappropriate and not in proportion to the timeframe the site accesses are proposed to be used during the construction period. The site access drawings will be updated as part of the next

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		iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] the Applicant proposes to submit at Deadline 3A. A speed survey was carried out at the request of the local highway authority which recorded the speed of vehicles at the proposed construction site access. The results of the 85% percentile are presented in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301]. This identified the 85th percentile vehicles speeds to be 40mph. Therefore, the desirable minimum stopping sight distance to be 120m and the one step below desirable minimum to be 90m in Design Manual for Road and Bridges (DMRB) CD109 Table 2.10. It is also noted that providing one step below desirable minimum to be an acceptable provision. The Stage 1 Road Safety Audit identified a signage strategy to be provided warning motorists of the upcoming site access which the Applicant has commented to providing. Therefore, the achievable visibility splay is above the one step below desirable minimum visibility for 40mph. It is also noted that National Highways agreed to the use of the A11/Newmarket Road junction for development related vehicles (left in and left out only). Therefore, it is considered the achievable visibility without vegetation trimming, the design of the site access to accommodate two-way HGV movements and the provision of the signage strategy as identified in the Stage 1 Road Safety Audit to be appropriate for this site access during the construction phase. The existing site access on Golf Links Road (Sunnica East Site B Site Access J) is proposed to be used during the operational phase following the consultation period. Therefore, no alterations are expected to be required at this site access due to the expected very infrequent use it will receive during the operational phase, although powers are sought to improve it should it be required. Swept path analysis of two-way HGVs has been provided at Sunnica East Site B Site Access I on Newmarket Road (located between the A11 and Golf Links Road). Further information will be provided in the updated site access drawings which will be included within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A.
13.108-109	Visibility	The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be

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		reported within the relevant Statement of Common Ground. To enable this, a draft set of site access drawings has been prepared and provided to the LHAs. The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. It is assumed that the reference made to providing the DCO boundary at appropriate scale is in relation to discussions over the thickness of the DCO Order limit lines at which the Applicant has clarified that the line thickness is directly replicated from the plans submitted with the Works Plans, updated at Deadline 2 [REP2-005]. This is important for legal accuracy. As is standard practice, the Order limit lines in the DCO submission are of sufficient thickness to be legible at the scale at which those plans are required to be presented. Land within the outer edge of the line denoting the Order limits, is within the order limits.
13.110-13.111	Hard surfacing / standing at site accesses	The level of information provided at Annex C of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] is proportional to the stage of the project with detailed design of the site accesses to be provided at a later stage, prior to construction in accordance with requirement 6 in Schedule 2 to the draft DCO. This will include details of the form of construction and drainage details. A commitment is made by the Applicant to provide wheel washing facilities, within Chapter 7 (paragraph 7.2.17) of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] to mitigate the risk of material migrating into the highway. The Applicant thanks CCC for signposting the County Councils Highway Estate Roads Construction Specification (HERCS) as the required specification to follow at the appropriate time.
13.112-13.113	Use of accesses during operational phase	It is a key part of the access strategy to utilise traffic management measures to facilitate construction access, rather than undertaking excessive vegetation clearance for temporary access. The main site accesses serving the staff car parks will be retained during the operational phase for regular staff access. These access points do not require traffic management to afford safe access. All of the remaining accesses which are retained for occasional use for management and maintenance in the operational phase are existing agricultural accesses. Operational use of these accesses does not represent an intensification of use above their

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		present function, and therefore the use of the accesses is acceptable in highways terms without the use of traffic management.
	Required Mitigation	
13.114	Commitment to undertake mitigation	It is assumed that the "mitigation" referred to is a broad definition which includes highway works required to deliver safe and suitable access, as well as measures which are either currently included in the F-CTMP and TP [AS-300, AS-301], or which the highways authorities consider should be included within these documents. Inclusion within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] is the primary mechanism by which the Applicant makes the legal commitment to regulate and manage construction traffic. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development. The Applicant has proactively and constructively engaged with the LHAs through the course of preparing the DCO Application, and in the following months. The Applicant intends to submit an updated Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] Deadline 3A. This will include an updated suite of access drawings, which have been discussed previously in this response. It will also take the opportunity to respond to reasonable requests around mitigation proposals. These are referenced in this response where relevant.
13.115-13.116	*Further Information on Site Accesses*	
13.115-13.116	Plans showing the layout of the site and cable route access, to scale, with orientation and location are necessary Highway boundary and topographic surveys are necessary to ensure that the proposals are deliverable.	The Applicant respectfully disagrees with the Council's position that sufficient information has not been provided. Notwithstanding this, we have been working towards signposting and clarifying a number of points, with the aim of reaching agreement. The Applicant has been discussing these matters with the LHAs through a series of meetings, with the aim of reaching agreement on the substantive point of the feasibility of delivering safe and suitable access in the locations proposed. A further meeting is scheduled for 24/11/22 to go through each of the site access proposals with the outcomes of discussion intended to be reported within the relevant Statement of Common Ground. To enable this, a draft set of site access drawings has been prepared and provided to the LHAs.

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		The set of drawings provided to the local highway authorities are to be provided within the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3A. A summary of the information provided on the draft set of drawings includes: • Scale provided on each individual drawing; • North arrow on each individual drawing; • Identified if the base mapping is either topographical or Ordnance Survey (OS) on each individual drawing; • On-site measurements recorded during site visit; • Swept path analysis for vehicle types including large cars, HGVs, a 1000T crane and a 46.63m AIL; • Indicative site access layouts including dimensions; • Visibility splay for the main staff access during the operational period; • Summary of the site access use during the construction period in terms of HGVs; • Reference make to the Traffic Regulation Measures Plans – Road Closures and Temporary Traffic Regulation Measures Plans - Temporary Measures) [APP-009 to APP-013]; • Summary of the proposed temporary traffic signals and the achievable visibility splay during the use of the temporary traffic signals; • Included the Order Limits; and • Identified Highway Works on Elms Road and La Hogue Road to accommodate two-way HGV movements.
13.117-13.118	*Highway Safety*	
	Robust data collection and a reporting mechanism within the FCTMP&TP to record collisions and near misses	This will be carried out. The next iteration of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposes to submit at Deadline 3 will include a commitment to undertaking robust data collection and a reporting

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	associated with construction traffic or on construction routes Commitment from the Applicant to undertake improvements to road safety if these are identified during the above monitoring during the construction phase.	mechanism to record collisions and near misses associated with construction traffic or on construction routes. If there is a pattern of incidents that is apparent from information collected then this will be reviewed in terms of understanding causality. Understanding the underlying cause of any road safety issues will inform the approach to their resolution. Where relevant, measures will be considered and introduced by the Applicant to reduce the likelihood of occurrence, e.g. driver training.
13.119-13.129	*Changes to Management Plans*	
13.119	Controls of traffic movements have not been included in the outline Construction Transport Management Plan (OCTMP) and Outline Travel Plan (OTP)	The Applicant has stated to the Highways Authorities that it intends for the content of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301], and subsequent updates, to be enshrined and legally secured through the DCO. This principal is not in debate. It is unclear what the Highways Authorities refer to by controls on traffic movement as this term could have a broad scope. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development.
13.120	Management plans secured by the DCO currently lack sufficient commitments to ensure that the development impacts do not occur in the peak hours	An update of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] will be submitted at Deadline 3. Paragraph 7.2.6 of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] states that HGV deliveries will be managed to avoid the need for vehicles to arrive or depart from the site during the highway peak hours. In addition, paragraph 7.2.26 of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] states that staff will be travelling to / from the site outside of the highway peak hours (06:00-07:00 and 19:00-20:00). Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development.

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13.120	Management plans secured by the DCO currently lack sufficient commitments to ensure that the number of HGV movements do not exceed those assessed	The Traffic and Transport Chapter of the Environmental Statement [APP-045] assesses the worst case in terms of HGV numbers anticipated to travel to/from the site, and concludes that there will be no significant impacts in EIA terms. The Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] set out the mechanisms by which HGV movements will be managed to ensure that this will be the case.
13.120	Management plans secured by the DCO currently lack sufficient commitments to ensure that the number of workforce movements do not exceed those assessed. Management plans secured by the DCO currently lack sufficient commitments to ensure that car share assumptions are achieved	The Applicant respectfully disagrees and considers that the parameters used to determine maximum numbers of workforce movements are robust. Notwithstanding this, the Applicant will update the F-CTMP and F-TP [AS-300, AS-301] at Deadline 3, to include a commitment to monitor total vehicle levels at the two main staff accesses, and introduce a cap in vehicle numbers calculated at the level of a 1.3 vehicle occupancy to ensure the maximum assessed level of vehicle trips is not exceeded. Capping based on vehicle numbers, rather than car occupancy, addresses the crux of the parameter for which control is sought, whilst enabling the applicant to achieve this through other measures, such as the mini-bus which is set out in the F-TP. The Applicant will monitor and cap the number of staff vehicles travelling to the site based on peak construction flows at 1.3 occupancy, as per the sensitivity test presented in the Transportation Technical Note [REP2-041] submitted at Deadline 2. This is due to the 1.3 car occupancy sensitivity test not showing a greater impact on the local highway network and did not change the conclusions of the assessments undertaken. Construction staff traffic will be restricted and only able to travel to the site between 06:00-07:00 and depart the site between 19:00-20:00.
13.120	Management plans secured by the DCO currently lack sufficient commitments to ensure that monitoring, reporting and enforcement is effective	Please see response to 13.122. As set out in paragraph 8.2.2 of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301], any breaches or incidents will be reported.
13.120	Management plans secured by the DCO currently lack sufficient commitments to ensure that the	The Travel Plan is appropriate at this stage of the project and cannot commit to specific details without knowing workforce origins. Paragraph 7.2.31 of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] states that once staff origin locations are known investigation will be made into providing a mini-bus service to local residential areas to

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	workforce travel patterns are sustainable	pick up/drop off staff who live locally. In addition, this will investigate the potential to provide the mini-bus service to local railway stations. The additional commitment to monitor and cap staff vehicle numbers provides the security sought by the Local Highways Authorities to ensure that the Applicant will deliver on the commitments made in the Framework Construction Traffic Management Plan and Travel Plan [AS-301].
13.121	Monitoring, reporting and enforcement of Travel Plan	Please see response to 13.122. The embedded mitigation is set out clearly and unequivocally in the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] which has always been identified as a document to be certified in the draft DCO. This includes that the routing of HGVs is restricted to those routes shown in Figure 18 to 23 of the Framework Construction and Traffic Management Plan and Travel Plan. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development.
13.122	Breach of Travel Plan for Staff	As identified in the Framework Construction Environmental Management Plan [APP-123], a Community Liaison Group will be set up prior to construction and a Community Liaison Officer (CLO) will be appointed to engage with local communities during construction. Contact details will also be available on the display board at the site entrance should anyone wish to make contract. With regards to "fly" parking, the role of the CLO will be to listen to any concerns of local communities which may arise, and investigate as necessary. If staff are parking off-site, and this is causing a highways safety or amenity issue, the CLO will liaise with staff through the TP and encourage staff to use the on-site parking instead. The two staff car parks can accommodate the peak number of construction staff vehicles forecast as identified in the Transport and Access chapter of the ES [APP-045] and TA [APP-117]. Whilst the use of on-site parking will necessarily be security controlled, there will be no restrictions or charges to valid construction staff accessing the car park, and therefore there should be no incentive to "fly" park and every incentive to use the designated on-site parking. The Applicant will monitor and cap the number of staff vehicles travelling to the site as per the response to 13.120. Construction staff traffic will be restricted and only able to travel to the site between 06:00-07:00 and depart the site between 19:00-20:00. As set out in paragraph 8.2.2 of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301], any breaches or incidents will be reported. The construction

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		workers driving to the site will be subject to existing driving laws and the Applicant would expect driving offences to be enforced and sanctioned by the police in the normal fashion.
13.123	Travel Plan Reporting	This will be addressed in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposed to submit at Deadline 3. The Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] will commit to undertaking reporting of the following outputs: • Progress of the project against specific gateways; • Freight movement to/from the site; • Details of non-compliance with routeing or speed limits; • Near misses or safety related incidents; • Freight compliance with appropriate exhaust emissions (Euro VI); • Transport of AILs to/from the site; • LGV movements to/from the site; • Staff movement to/from the site, based on total numbers of vehicles and compliance with car share targets and compliance with shift patterns; and • Information on complaints received on transport related issues including parking.
13.124		The Applicant believes this is a formatting error and this point is part of 13.123 and has been included in the response to 13.123.
13.125		The Applicant believes this is a formatting error and this point is part of 13.123 and has been included in the response to 13.123.
13.126	Monthly monitoring report	This will be addressed in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] that the Applicant proposed to submit at Deadline 3. The Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] will commit to undertaking regular and frequent monitoring on a monthly basis or such lesser frequency as is agreed.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
13.127	Breaches in Travel Plan (HGVs)	The Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] assesses the worst case in terms of HGV numbers anticipated to travel to/from the site. Therefore, HGV numbers will not exceed the assessed daily HGV numbers. Paragraph 7.2.6 of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] states that HGV deliveries will be managed to avoid the need for vehicles to arrive or depart from the site during the highway peak hours. As set out in paragraph 8.2.2 of the Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301], any breaches or incidents will be reported, including not adhering to agreed routes or reports of HGVs being driven inappropriately. The HGV drivers associated with the scheme will be subject to the law and the Applicant would expect driving offences to be enforced and sanctioned by the police in the normal fashion.
13.128		The Applicant believes this is a formatting error and this point is part of 13.127 and has been included in the response to 13.127.
	Requirements and Obligations	
13.131-13.134	*Controls on HGV Movements*	The Traffic and Transport Chapter of the Environmental Statement [APP-045] assesses the worst case in terms of HGV numbers anticipated to travel to/from the site, and concludes that there will be no significant impacts in EIA terms. The Framework Construction and Traffic Management Plan and Travel Plan [AS-300, AS-301] set out the mechanisms by which HGV movements will be managed to ensure that this will be the case.
13.135-13.138	*Protective Provisions*	
13.135-13.138	The Councils consider it reasonable to pursue either protective provisions for the LHAs similar to those which are proposed for National Highways, or alternatively a side agreement with the LHAs to ensure that the LHA can control works to the public highway	Heads of Terms for a side agreement for highway matters were issued on 26th August 2022 by the Applicant to the local highway authorities. This relates to a proposed agreement which would set out the practicalities of the processes to be followed where the Applicant seeks to exercise the powers contained in the DCO, if granted, in respect of highways. The Applicant looks forward to discussing the Heads of Terms with the local highway authorities in the coming weeks.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	and recovers reasonable costs for doing so.	
13.139-13.143	*Planning Obligation*	
13.139-13.143	The following contributions should be secured through S106: • An obligation to undertake visual and structural surveys of all routes intended to carry construction HGVs prior to, during and after the construction period and to undertake or pay for the highway authority to undertake any such work that is deemed necessary to return the carriageway to its original condition. • A contribution for review of submitted materials for monitoring the CTMP and for monitoring the TP for the life of the project. • The sum of 7.5% of the cost of total off-site highway works on or before the commencement of construction, to be applied to cover the full audit, legal costs, S278 agreements, dedication of land into highway, land compensation events and supervision fees for the transport schemes to be implemented by the Applicants under the DCOs.	The vehicle routes for Abnormal Indivisible Loads (AILs) had been reviewed to identify appropriate routes which from the A11 to the required site accesses. The routes identified avoid bridges which weight limits and therefore it is not necessary to undertake visual and structural surveys on all routes as the HGVs will be under the required weight limit of the local highway network. The Applicant has committed to conditional surveys within the Framework Construction Traffic Management Plan and Travel Plan [AS-300, AS-301] to ensure damage caused by the vehicles related to the development is made good however the extent of the conditional surveys are to be agreed with the local highway networks. It is expected the conditional surveys would cover the local highway network from the A11 to the site accesses. There are ongoing discussions between the Applicant and the Local Highways Authorities with regards to fees relating to the handling of applications for approvals under the requirements. The Applicant has committed to the temporary removal and subsequent reinstatement of street furniture which would be required to accommodate the AILs to pass, within the Framework Construction Traffic Management Plan and Travel Plan, which the Applicant proposes to submit an update to at Deadline 3. Discussions are ongoing in relation to the terms of a side agreement in relation to the exercise by the Applicant of the powers its seeks overs the local authorities' highways, if development consent is granted.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	Reimbursement of the Highway Authority for all costs associated with assessments of highway structures and the moving, removing, installed and reinstalling street furniture, streetlights, traffic signals, traffic islands and all other highway infrastructure including structures necessary for safe movement of AILs and any associated traffic management and temporary traffic orders.	
13.144	*Side Agreement*	
13.144	In principle, the Councils consider that a number of issues including technical approvals of highway works, traffic management measures, and monitoring of damage to the local highway network could be dealt with by a side agreement which would cover the same ground as an agreement pursuant to s278 of the Highways Act 1980.	The Applicant acknowledges this position. Heads of Terms for a side agreement for highway matters were issued on 26th August 2022 by the Applicant to the local highway authorities. This relates to a proposed agreement which would provide set out the legal framework in respect of highways matters, to include where the Applicant exercises statutory powers in respect of highways under the DCO. The Applicant looks forward to discussing the Heads of Terms with the local highway authorities in the coming weeks.
13.145	*Contributions to Works*	
13.145	Contributions to the A14/A142 junction improvements if further improvements are necessary to accommodate construction traffic.	The construction of the Proposed Development does not necessitate this improvement scheme. No contribution is required to make the traffic effects of the Sunnica Energy Farm acceptable in planning terms.

10 Chapter 14 Private Rights of Way

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
14.31 and 14.45	The A&ROW plans do not currently show any proposed diversions for temporarily stopped up PROW. The proposed temporary closures and/or diversions, and any proposed use of the PROW to deliver the scheme, need to be discussed and agreed with the LHA to enable the LHA to assess the implications for users and advise the applicant accordingly.	The Access and Rights of Way Plans do not, and are not intended to, show the extent of temporary closures of public rights of way. The extent of the PRoW that may be closed in accordance with the power under article 11(4) of the DCO are those listed in Part 1 of Schedule 6 to the draft DCO, which in turn, refers to the Traffic Regulation Measures Plans – Road Closures [**REP2-007** to **REP2-009**] on which the extent of those temporary closures are shown. Section 6.3 of the Framework Construction Traffic Management Plan and Travel Plan (an updated version is submitted at Deadline 3) sets out the Applicant's proposals in relation to the temporary closures of roads and public rights of way during the construction of the Sunnica Energy Farm.
14.33	The Councils are concerned that the Applicant does not consider less disruptive methods such as the use of banksmen used on other similar DCO projects (such as East Anglia 1 and East Anglia 2) nor commit to providing safe and suitable diversions for all users if Rights of Way are Closed. Of particular concern is the length and nature of potential diversions, for example walkers, cyclists and equestrians being diverted onto local roads that are being used by local and construction traffic. For example, closure of Freckenham Footpath 003 (PRoWC5B to C in APP-010) would divert walkers onto Elms Road, the main construction traffic route for Sunnica East.	The Applicant has considered less disruptive methods such as the use of banksmen as an alternative to PRoW closures, and will do so where possible. This has been discussed with the local highway authorities and it has been explained that the EIA necessarily has to assess a worst case scenario. The worst-case scenario of temporary PRoW closures has been assessed with the Transport and Access chapter of the Environmental Statement [**APP-045**]. Further consultation has been undertaken with the local highway authorities regarding the practical interactions with PRoWs during the construction period. This includes the use of banksmen for crossing of PRoWs. However, depending on the nature of the works required at the time, it is considered that the contractor might not consider it safe to provide banksmen to manage the crossing of the PRoW. Therefore, a temporary and short-term closure could be the most appropriate management method to ensure the safety of the public and the construction workers. This has been assessed as a worst case scenario. Each of the PRoW closures identified within the Traffic Regulation Measures Plans [**APP-009** to **APP-011**] will be considered individually on their own merit to assess if banksmen can be provided rather than the temporary short-term PRoW closure. If required, appropriate alternative routes would be identified and signed for PRoW users. The closures are expected to be of short duration (expected to be no longer than 3 weeks) and during closures users of the PRoWs will be re-directed to other routes on the existing Public Right of Way network. No temporary replacement routes are proposed as the Applicant does not

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		consider the potential adverse environmental effects of the provision of such routes (such as loss of vegetation and disruption to the ecology it supports) are merited in view of the short duration of the proposed closures. The Applicant also considers that it would not be justified in the public interest to temporarily deprive a landowner of the use of their land to facilitate such a short term temporary alternative route.
14.34	The need to understand Councils also whether it is intended to use any of the PROW to deliver the development e.g., as haul routes. Written confirmation is needed that internal haulage routes will not use sections of PROW, only cross PROW. The latter would still potentially have a significant detrimental impact on PROW users and cause damage to the PROW and its boundary features. The LHAs seek for article 11 of the DCO to be amended to remove the ability of the developer to travel along PROW as is currently implied. It will be sufficient for crossing of PROWs to be dealt with through the Construction Management Plan.	The Applicant amended article 11(1)(b) of the draft DCO submitted at Deadline 2 [**REP2-012**] to make it clear on the face of the Order that the authorisation of the use of motor vehicles on public rights of way is for the purposes of crossing only.
14.35	The Councils note that all proposed temporary measures concerning PROW during construction must be: Agreed with the relevant LHA, including its Rights of Way Management Team and Streetworks Team. Shown on the A&ROW Plans	It is noted and agreed that the temporary measures concerning PRoWs will need to be agreed with the local highway authority and its Rights of Way Management Team and Streetworks Team – this is facilitated through the approval of the CTMP. The Applicant looks forward to discussing with the local highway authority appropriate amendments to the Framework Construction Management Plan to provide an appropriate degree of re-assurance in relation to the practical matters arising from the temporary closure of public rights of way, should they prove to be required.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
14.36	Documented in the Construction Management Plan together with the methodology to be employed so that any temporary closures or diversions can be properly managed together with temporary closures of other parts of the highway network.	The final Construction Traffic Management Plan will detail the methodology to be employed so that temporary closures or diversions can be managed together with temporary closures of other parts of the highway network. The Applicant proposes to provide an updated iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**] at Deadline 3, although there will be no substantive changes in relation to PRoW. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development
14.42	At a meeting with the Councils on 3 October 2022 the Applicant stated that they now propose to extend constructions works into Saturdays. This could have a significant impact on users of the PRoW network, as more leisure use of PRoWs tends to occur at the weekend than during the week. If this change is confirmed, the impact will need to be assessed.	It is stated that during a meeting 'with the Council on 3 October 2022 the Applicant stated that they now proposed to extend constructions works into Saturday'. This is not correct, the working hours have not changed post submission of the DCO application. The Applicant clarified a previous misconception that Saturday working hours were to be 0700-1300, by confirming that Saturday working hours will be 0700-1900. These working hours are provided for in the Framework Construction Environmental Management Plan [**APP-123**] and the updated version [**REP2-026**]. Requirement 14 in Schedule 2 to the draft DCO requires that no phase of the authorised development can commence until a CEMP has been approved by the relevant authority (or authorities), and the CEMP must be substantially in accordance with the Framework version. Commentary on Saturday impact assessment is detailed in response to point 1.6 of Appendix D. This demonstrates that the impact referred to in point 14.42 has been assessed in full.
14.41 and 14.48	The assessment of noise needs to consider the impact on non-motorised users and particularly horses outlined above and needs to agree details of proposed mitigation where appropriate with the LHAs and implement it. At this stage there is insufficient detail provided in the documents to consider the location of the Solar Stations containing inverters, switchgear and	Noise from a solar farm is low and continuous and unlikely to cause disturbance to horses in the long-term. However, horses may be startled by sudden high levels of construction noise. Consequently, engagement will be undertaken with equestrian groups on scheduling of construction activities with potential for generating high levels of noise in the vicinity of public rights of way or other highways frequently used by horse riders. This commitment to engagement is secured in the CEMP submitted at Deadline 2 [**REP2-026**].

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	other associated equipment. The Preliminary Environmental Information Report in section 4.7.5 predicts the effects of noise to be negligible. However, The British Horse Society advice on Solar Farms noise explains that noise from inverters can be intrusive and could potentially be disturbing to equestrian users of the Bridleway 204/5. It should be noted that a horse's range of hearing is wider than a humans and sounds are audible at lower decibels.	
14.49	The Applicant must assess the impact of extending work into Saturdays for the duration of the construction on the behaviour of non-motorised users of the PROW network and propose appropriate mitigation measures to counter any negative impact in order to maintain existing standards of health and well-being of affected communities.	Paragraphs 11.4.10 and 11.4.11 of Chapter 11, Noise and Vibration of the Environmental Statement [**APP-043**] provides details on construction noise effects on PRoW users. PRoW users have not been included as sensitive receptors in the assessment as there is no guidance for assessing noise effects on behavioural change outside of residential properties and they will not be subject to long-term noise exposure that may result in health impacts. It is acknowledged that PRoW users will be affected by construction noise for the duration that they are in proximity to works. Consequently, noise impacts during construction phases on users of PRoW will be managed according to the wider approach set out in the Framework CEMP [**REP2-026**].
14.50	The councils requires that planting landscaping and other shielding mitigation adjacent to (not on) PRoW and permissive paths be a condition of any DCO consent and that the Applicant be required to provide more detail to the relevant Council for approval through the detailed design process to ensure a minimum width of two metres must be left between the legal boundary of a	These matters are accounted for in the OLEMP, and the Council's ability to approve the detailed LEMP.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	PRoW and any new planting, to allow for growth without unlawful obstruction of the highway.	
14.19 and 14.51	The pre-existing legal highway boundary extents and proposed new physical and legal extents for all roads and PROW must be added to the A&ROW Plans so a) the LHA can assess the implications for users and its maintenance liability and advise the developer accordingly; b) the Applicant can implement appropriate mitigation measures for any temporary closures and reinstatement work that might be required; and so it knows the correct legal location for the shielding measures; and c) the LHA can plan its future asset management of the highway network and infrastructure appropriately.	The Applicant disagrees and considers that the Access and Rights of Way Plans [**REP2-006**] and the Traffic Regulation Measures Plans – Road Closures [**REP2-007** to **REP2-009**] contain sufficient detail to articulate the extent and scope of the powers sought in the draft DCO, when read together with the terms of the DCO. Nonetheless, the Applicant acknowledges the Council's concerns and is seeking to agree with it a side agreement that addresses the practicalities of the exercise of the powers sought by the Applicant in its draft DCO.
14.21 and 14.52	All proposed permissive paths must be added to the plans.	The permissive paths are shown on the OLEMP [**APP-108**] as that is the securing mechanism for those plans. Furthermore, they are not public highways, so it would not be appropriate to shown them on the ARoW plans.
Table 11. 1x	Detrimental impact to PROW - PROW are both historic and living features that are part of the landscape, and need to be assessed as such in order to identify appropriate treatment.	The Applicant recognises the historical basis of PRoW, their role in the landscape and use by people for accessing the countryside. The right of access and the nature of the routes which these rights apply to are separate considerations. These routes often coincide with natural features, such as field boundaries or watercourses, which contribute to their character. The Landscape and Visual Impact Assessment (LVIA) summarised in Chapter 10 of the ES [**APP-042**] includes an assessment of likely effects of the construction, operation and decommissioning of the Scheme on people's views from PRoW with reference to representative viewpoints. The LVIA has informed the design of the Scheme, including the interface with existing PRoW and

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		proposed permissive paths to maximise their integration with the landscape and contribution to people's views and visual amenity.
Table 11. 1y	Glare and Shielding: Impact on users of the PRoW network in the vicinity of the development, particularly FP1 Chippenham/FP1 Snailwell, FP2 Chippenham and BR5 Snailwell. NMUs are visual and noise receptors in the landscape and are sensitive to changes in the environment which can result in behavioural change, leading to adverse effects on mental and physical health and wellbeing.	The Landscape and Visual Impact Assessment summarised in Chapter 10 of the ES [**APP-042**] considers the likely effects on the views of people using PRoW. Views from FP1 Chippenham/FP1 Snailwell (204/1) are represented by viewpoints 44 and 45 [**REP1-014**]. Major adverse effects have been identified in relation to viewpoint 45 during construction due to the intra-project effects of Sunnica West Site B and Cable Route B. These effects will cease on completion of the construction phase and effects in operation and decommissioning are considered not significant. There will be no views of the Scheme from FP2 Chippenham (204/2) due to the scale and density of intervening buildings and vegetation. Views from BR5 Snailwell (204/5) are represented by viewpoints 39c, 40 and 41. Visual effects during construction are predicted to be moderate adverse at viewpoint 41 due to the openness of views east across works related to Cable Route B and the northern end of Parcel W03 of Sunnica West Site A. These effects would reduce to not significant during operation and decommissioning. Dense vegetation lining BR5 screens views of the Scheme along the route adjacent to where solar panels are proposed. In summary, whilst there will be some disruption to views of people using these PRoW during construction which would lead to significant effects, these effects would be temporary and effects in operation and decommissioning would be not significant. Noise effects on health and quality of life for permanent resident of dwellings are identified in Chapter 11: Noise and Vibration of the Environmental Statement [**APP-043**]. PRoW users have not been included as sensitive receptors in the assessment of operational noise as they will not be subject to long-term noise exposure that may result in health impacts.
Table 11. 1bb	Noise impact to equestrian users – Bridleway 204/5 . BHS advice on Solar Farms noise explains that noise from inverters can be intrusive, and could potentially be disturbing to equestrian users of the Bridleway 204/5. It should be noted that a horse's range of hearing is wider than a humans.	Horses and humans share the most closely related hearing ranges of any other mammals on the planet. The British Horse Society (BHS) state that "*A horse's range of hearing is greater than a human to higher frequencies (over 33 kHz in the horse compared with under 20 kHz in humans) although a horse may not be able to hear the lowest frequencies audible to humans*" (Advice on The Impact of Noise on Horses in England and Wales, advice note prepared by the British Horse Society, December 2018). The BHS go on to state that: "*Horses can become difficult to handle in conditions where there is a continuous level of noise because it may mask other sounds that could be a threat*". Examples are provided of noise sources that may affect a horse as "*gunshot, motorway, train*", which are all considered to generate high levels of noise. Noise predictions presented in Figure 11-4 of the ES indicate operational noise levels of approximately 40 dB

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		LAeq,T at 204/5 bridleway locations adjacent to Sunnica West Site A. This level of noise is likely to be perceptible, but can be compared as equivalent to a quiet residential area. The Applicant has engaged equine experts who have advised that research shows that the horse's processing of decibel levels is similar to humans and therefore a human assessment of what is an acceptable decibel level for a noise is a fair benchmark. Consequently, this level of noise is unlikely to cause disturbance to equestrian users of the Bridleway 204/5.

11 Chapter 16 Contaminated Land

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
16.1	Correct procedures have been followed. Recommendations require commitment for compliance through the DCO	Applicant agrees with LIR comment, and this aligns with Draft DCO Requirement 18, where the drafting aligns with the Recommendations in the PRA [**APP-122**].
16.2	Investigation and Risk Assessment must be approved by LPA.	Applicant agrees with LIR comment, and this aligns with Draft DCO Requirement 18.
16.3	Remediation method statement must be approved by LPA and carried out in entirety.	Applicant agrees with LIR comment, and this aligns with Draft DCO Requirement 18.
16.4	Validation must follow remediation and must be approved by LPA.	Applicant agrees with LIR comment, and this aligns with Draft DCO Requirement 18.
16.5	Previously unidentified contamination must be reported to LPA.	Applicant agrees with LIR comment, and this aligns with Draft DCO Requirement 18.
16.6 – 16.11	Summary Construction and operational phase impacts	No response required (Applicant is in agreement with LIR comments).
16.12	Intrusive investigation is required, with remediation of any contamination identified	Applicant agrees with LIR comment, and this aligns with the PRA [**APP-122**] and the approach set out in DCO Requirement 18.

12 Chapter 17 Climate

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
17.21	*"Fuel consumption during construction will be significant with an estimated 312,500 L to be used for site construction and 37,500 L to be used for cable route construction. The carbon footprint of this fuel use is substantial."*	Greenhouse gas (GHG) emissions from fuel consumption during construction account for less than 1% of overall construction emissions associated with the Scheme. This level is therefore not considered to be material in the context of the wider Scheme construction emissions.
17.22	*"The Councils do not feel that the Considerate Constructors Scheme (CCS) is a robust enough standard to ensure that a development of this size and national significance is appropriate for managing and reducing the environmental impacts arising – especially in relation to the fuel inputs, vehicle journeys, waste generated, and water usage."*	The Applicant considers that the measures set out in the Environmental Statement and associated documents, including CCS, set a high standard for the implementation of a sustainable Scheme and does not consider that it is necessary to implement CEEQUAL.
17.23	*"The construction period will cause large amounts of greenhouse gases to be emitted. It is estimated that over the 2-year construction period, approximately 452,015 tonnes of CO_2 would be emitted."*	The Climate Change Chapter of the Environmental Statement [**APP-038**] concludes that "*the GHG reductions achieved as a result of the Scheme itself adequately outweigh and offset the GHG impacts during the individual lifecycle stages*", and that "*as the overall impact of the Scheme is major beneficial, it is not appropriate to define any mitigation measures further to the ones detailed in Section 6.7 [of the Environmental Statement]*".
17.25	"*In order to improve the sustainability of construction, the applicant should set out an approach to reduce fuel consumption and associated emissions. Clear targets for reducing*	As outlined in the Climate Change Chapter of the Environmental Statement [**APP-038**] and Framework Construction Environmental Management Plan (CEMP) [**REP2-026**], the following measures will be implemented to reduce fuel consumption and associated emissions during construction:

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	consumption and emissions should be set out and monitored, with consideration to the region's net zero goals. Electric and hybrid plant machinery should be the first choice, where available, and plant drivers should be trained to improve efficiency and the use of ecomodes. Where practical, the Applicant's compounds should include electric charging points for the construction vehicles and the workforce."	• The CCS will be adopted to assist in reducing pollution, including GHGs, from the Scheme by employing good industry practice measures which go beyond statutory compliance. Specific measures will be listed in the detailed CEMP. • The use of lower carbon modes of transport will be encouraged by identifying and communicating local bus connections and pedestrian and cycle access routes to/from the Scheme to all construction staff and providing appropriate facilities for the safe storage of cycles. Potential staff minibus and car sharing options will also be explored. • A Travel Plan will be implemented to reduce the volume of construction staff and employee trips to the Scheme. • Vehicles and plant will be switched off when not in use and construction vehicles will conform to current EU emissions standards. • Regular planned maintenance of the plant and machinery will be conducted to optimise efficiency. The Climate Change Chapter of the Environmental Statement [**APP-038**] concludes that "*the GHG reductions achieved as a result of the Scheme itself adequately outweigh and offset the GHG impacts during the individual lifecycle stages*", and that "*as the overall impact of the Scheme is major beneficial, it is not appropriate to define any mitigation measures further to the ones detailed in Section 6.7 [of the Environmental Statement]*". The Applicant therefore considers these measures to represent an appropriate level of mitigation in relation to fuel use during construction. While electric and hybrid plant machinery may be utilised for the Scheme where reasonable and practicable, the Applicant does not consider it appropriate to commit to their use as their future availability is not assured due to potential increased demand for them in the future. Also, it is not known at this stage whether the site will be adequately connected during construction to be able to charge electric plant machinery.
17.26	"*It is recommended that this development sets a CEEQUAL target to achieve and enhance the level of monitoring of key emissions sources during construction and works to*	CEEQUAL is not being carried out on the Scheme. CEEQUAL is a much wider sustainability self-assessment process covering a breadth of sustainability impact categories, such as land use, landscape, ecology and biodiversity, historic environment, material use, transport, and effects on neighbours, among others. As such, it is not considered appropriate to set a target against one specific aspect of CEEQUAL in isolation. The Applicant considers that the measures set out in the

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	manage and reduce these emissions to achieve the CEEQUAL standard."	Environmental Statement and associated documents set a high standard for the implementation of a sustainable Scheme and does not consider that it is necessary to implement CEEQUAL.
17.27	"*However, even if mitigation is carried out, the carbon footprint of construction products remains substantial. The Councils encourage the Applicant to consider ways to off-set the carbon footprint of the development.*"	As outlined in the Climate Change Chapter of the Environmental Statement [**APP-038**], the operational GHG intensity of the Scheme (i.e. the total lifetime operational emissions of the Scheme, divided by the total kWh output of the Scheme, equating to 9.02 gCO_2e/kWh) was compared to the UK Government projected GHG intensity of the national power grid for each year of operation. Based on the difference between the operational GHG intensity of the Scheme and the UK Government projected GHG intensity of the national power grid over the Scheme's operational lifetime, it is estimated that, compared to electricity generation from the Scheme, an additional 957,334 tCO_2e would be emitted to generate the equivalent amount of electricity over the operational lifetime of the Scheme from the projected grid energy mix. The GHG emissions from construction and decommissioning of the Scheme equate to approximately 467,200 tCO_2e. Therefore, it is considered that the reduction in GHG emissions achieved as a result of the Scheme itself adequately outweigh and offset the GHG impacts during the individual lifecycle stages.

13 Chapter 18 Battery Fire Safety

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
none	General	The Councils have sought additional information in respect of the design and operation of the BESS. In some instances, the information requested can only be provided once the BESS is at its detailed design stage which, as is common practice, occurs post consent. However, the Applicant has designed the BESS within a set of parameters that are outlined in the Design Principles in the Design and Access Statement [**APP-264**] and it is these design principles which have been assessed in the Environmental Impact Assessment. By environmentally assessing these parameters, the worst-case scenario has therefore been assessed. The Applicant also produced an outline Battery Fire Safety Management Plan (BFSMP) [**APP-267**] which it submitted with its Application and which sought to provide additional controls over the final form of the BESS. The Applicant considered that the BFSMP was detailed and ensured that mitigation was available to prevent a fire from occurring and, in the unlikely event that a fire did occur, that the incident would be safely mitigated. In recognition of the concerns raised by interested parties the Applicant has updated the outline Battery Fire Safety Management Plan [**REP2-032]** and submitted it for Deadline 2. It is considered this provides a very detailed plan which ensures that the final design of the BESS will be acceptable and that in the unlikely event of a fire it would be managed safely ensuring the safety of site staff, first responders and the wider community.
18.4	18.4 The water supply requirement will be dependent on the operational and extinguishing system that is identified as the most appropriate, which will depend on for example (not exhaustive) the final configuration of the battery housing, and clarification regarding reasonable worst case scenario emergency planning. The Outline Battery Fire Safety Management Plan Table 5 includes the Water UK National Guidance Document on the Provision of Water	Any changes to the Water UK National Guidance Document on the Provision of Water for Fire Fighting relevant to BESS will be factored into the outline Battery Fire Safety Management Plan [**REP2-032**], if it is published during the examination in time for the Applicant to respond. Otherwise, it would be considered when the Battery Fire Safety Management Plan is reviewed and updated for submission in accordance with requirement 7 of the draft DCO. The UK National Fire Chiefs Council is producing a 2023 guideline document for BESS planning and BESS water supply recommendations. This document is also referenced in the outline Battery Fire Safety Management Plan in Table 6 at items 2 and 31 [**REP2-032**].

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	for Fire Fighting document which will be utilised for reference. The Councils are aware this document (3rd edition, 2007) is currently under a significant review and its scope is considered for general firefighting rather than specific risks e.g., Battery Energy Storage Systems (BESS). The Councils request that this scheme considers any alterations to this guidance document that may be appropriate if they emerge during the Examination	
18.5	18.5 It is noted that during the Victoria, Australia big battery fire on 30th July 2021 it is estimated that approximately 900,000 litres of water was utilised to protect adjacent units. The Councils require sufficient information regarding the system design to inform detailed operational response plans which will, in turn, impact on the requirement for water on site.	It is not considered that the Victoria Australia fire is an appropriate reference point for Sunnica. It was a Tesla self-consuming Megapack design which does not integrate an internal fire suppression system and situates BESS in very close proximity to each other and as such it should not be considered an accurate benchmark for universal firefighting water requirements for BESS sites. Since that fire incident, the lessons learned have been widely shared across the BESS sector, and Tesla has issued specific guidelines for firefighters to ensure that huge volumes of water are not unnecessarily discharged during any future incident. It is unlikely that this profile of incident will occur again for a BESS design that has been tested and certified to the highest industry standards. The Councils and relevant Fire & Rescue Services (FRS) will receive in depth information on the BESS system design to inform operational response plans. Table 4 of the revised outline Battery Fire Safety Management Plan [**REP2-032**] outlines the requisite abuse and fire test programs required for the BESS system which will help inform water supply requirements necessary for firefighting response. BESS battery manufacturers / integrators provide firefighting guidelines as part of the BESS system documentation package. These guidelines will be based on internal testing plus official fire testing and certification data.
18.6	Water supply for any automatic suppression system will be covered by the relevant standard/design depending on which system chosen as	Provisional manual firefighting water requirements have been agreed with the local FRS and are listed in the outline Battery Fire Safety Management Plan [**REP2-032**].

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	appropriate for the risk. For manual water, amounts should come from performance based requirement rather than a reference to a code, unless it can be shown that the code specifically covers BESS. Regarding water storage tanks, volumes will again need to be informed on a performance based need and not referenced to Approved Document B volume 2 (ADB) which is not appropriate for this use as a BESS is not a 'common building' design for which the approved documents are appropriate.	When the BESS detailed design is selected, performance-based water requirements will be confirmed with the FRS. These requirements can be defined from analysis of the BESS system UL 9540A testing and / or 3rd party fire & explosion test data which evaluate structural integrity, safe spacing distances for BESS equipment and automatic suppression system performance. These standards are referenced in Table 4 of the outline Battery Fire Safety Management Plan [**REP2-032**].
18.7	Any calculations for sufficient water supply for an appropriate suppression system will need to be completed by a competent person considering the appropriate risk and duration of any fire.	Suppression system water requirements will be established from BESS system validation to UL 9540A and / or 3rd party fire & explosion testing and reviewed by an independent fire protection engineer.
18.8	The number and location of Fire Hydrants will be determined following Risk Assessment and with reference to guidance contained within the "National Guidance Document on the Provision of Water for Fire Fighting" 3rd Edition, as above.	The outline Battery Fire Safety Management Plan [**REP2-032**] specifies that water tanks will be provided for firefighting requirements. This strategy was agreed with the Fire Service lead for Sunnica (Suffolk Fire and Rescue Service). Performance based water supply requirements will be confirmed after an assessment of the selected BESS system test data by Suffolk Fire and Rescue Service.
18.9	The Councils note the inclusion of Outline Battery Fire Safety Management Plan Table 3 item 16.	The revised outline Battery Fire Safety Management Plan [**REP2-032]** includes indicative BESS site plans. The plans include prevailing wind direction and multiple first responder access point details.

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	The Councils will require detail in relation to access points taking into account prevailing wind and emergency response plans. There should be accommodation for relevant fire service assets to navigate throughout the site which may be of differing size and weight.	Site access roads are designed to facilitate vehicles in excess of 40 tonnes and turning areas and firefighter BESS observation areas are included in the plans.
18.10	Access and facilities for the Fire Service should also be provided in accordance with the Building Regulations Approved Document B5 Vehicle Access. Dwellings Section 13 and/or Vol 2. Buildings other than dwellings Section 15 Vehicle Access. The Fire & Rescue Services have specific vehicle details available, and the Councils will share these, on request, to account for the specific vehicles operated.	The revised outline Battery Fire Safety Management Plan [**REP2-032]** includes indicative design plans for access and facilities for the Fire Service. The design plans will be discussed and approved by the relevant fire services during the detailed design process to ensure facilities are compatible for all local FRS vehicles and will need to be approved by the relevant planning authority under both requirements 6 and 7. The relevant Building Regulations requirements will be applied to the design.
18.11	Without a final design of the system being implemented at the sites, the level of risk the systems may pose if a fire were to occur on site is difficult to assess. The report entitled 6.2 Appendix 16D: Unplanned Atmospheric Emissions from Battery Energy Storage Systems (BESS) under 3.1.2 states 'As a definitive emission rate will not be known until later in the detailed design stage'. An assumed emission rate of 1 µg/m3/s	As specified in the revised outline Battery Fire Safety Management Plan [**REP2-032**] BESS system UL 9540A and 3rd party fire & explosion test data will provide a significant scale validation of BESS design structural integrity and safety. Fire Suppression system performance will also be defined and validated during UL and 3rd party testing. The assumed emission rate in the dilution modelling in Appendix 16D [REP2-064] is used in order to produce the rates of dilution expected at each receptor. These rates have then been applied to representative emissions of HF to give illustrative concentrations. As stated, this is a detailed assessment based on likely parameters and if necessary, the Applicant has committed to undertaking Consequence Modelling once the detailed design is fixed.

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	has been utilised in relation to the tests with a 5-rack fire, however with the absence of the final design of the systems these assumptions will need to be challenged to understand an accurate test relating specifically to the site in question. It is noted that 2.1.7 states that the containers are unlikely to hold any more than 35 racks and that with thermal barriers it is likely that the fires will burn out before spread of fire is realised. These assumptions will be reliant on the final system design and proof of evidence in relation to testing and suitability of extinguishing system.	
18.12	The report states under 3.2.2 that 'Near source temperatures in excess of 300 °C can be reasonably expected to be present, which would result in the plume rising rapidly'. This assumes immediate escape of fire gases which the Councils believe may not be the case as it is contained within a container, this will have effect on heat build up, fire behaviour and smoke spread, and needs to be considered. The wind speed, direction and neighbouring units will also cause interference in the movement of the products of combustion. Although this is mentioned within 3.5.1 there may be localised variations in smoke	As defined in the outline Battery Fire Safety Management Plan [**REP2-032**] the BESS design selected for Sunnica will be equipped with a gas exhaust or ventilation system that works in conjunction with the internal suppression system. The design objective is to release smoke and gas emissions through the roof and away from site equipment, site operatives and first responders. It should be noted that the modelling has not accounted for a rapid plume rise, which is in order to provide a worst-case assessment. Wind speed and direction have been accounted for in the model, with 5 years of hourly meteorological data used. A key safety feature of the Emergency Response Plan (ERP) will be to ensure that first responders wear full PPE for incident response and will not work in close proximity to BESS containers until any fire and explosion risks are alleviated.

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	behaviour. The associated risk with the smoke movement and toxins found within the smoke may cause additional risk to fire crews attending any fire situation on site. The relation of smoke behaviour with temperature variants alongside the wind variants would also be of use as this will directly impact the spread of any fire gases.	
18.13	The Councils note the omission of 2018 as a sample year in favour of 2014 for modeling purposes, and seek additional clarification around the omission of this year.	As stated in the Councils' own Appendix 26 (Independent review of Appendix 16D: Unplanned Emissions from BESS [**REP2-064**], the omission of 2018 data from the meteorological dataset will have no material impact on the results as presented. 2018 data was not used as the data set was incomplete.
18.14	The Councils request the Applicant to confirm the gases present in relation to the specific battery units proposed for these sites. It is noted in the Arizona fire report that Hydrogen Cyanide was also detected in high levels. The Fire Protection Research Foundation (FPRF) report (Ref 2) on 'Hazard Assessment of Lithium Ion Battery Energy Storage Systems is cited however the Councils require additional confirmation regarding the battery technology utilised on site and the exact relevance of this report.	As stated in the outline Battery Fire Safety Management Plan [**REP2-032**] the BESS system selected for Sunnica will have completed UL 9540A testing which defines and quantifies gas emissions produced during thermal runaway. This data will be used, if necessary, for all BESS specific consequence modelling conducted for Sunnica. The Councils will receive confirmation of the battery technology utilised by the BESS system as soon as it is selected. SLR who conducted the 3rd party review of Appendix 16D: Unplanned Atmospheric Emissions from Battery Energy Storage Systems (BESS) [**REP2-**064] validate the use of the FPRF report as a useful reference for Sunnica because it highlights some of the potential emissions.
18.15	A number of detailed methodological points are raised by a third-party review of the Unplanned Atmospheric	Please refer to the separate responses to Appendix 26 (SLR 1-10)

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	Emissions report commissioned by the Councils, which is attached at Appendix 26.	
18.16	The modelling undertaken to date includes a number of assumptions including the temperature of the fire, a limited spread between stacks and wind direction and strength. The levels of toxic gases produced need to be relevant to the exact system being requested for the sites. The assumption of 5 racks involved in fire will need to be proved as there can be up to 35 racks in each container. The containment of the fire gases may cause increased and sustained temperatures, the Councils seek further clarification in relation to the thermal barriers to prevent larger scale fires. The levels of toxic gases being emitted may differ based upon the design and construction of the units.	As specified in the outline Battery Fire Safety Management Plan [**REP2-032**] the BESS supplier will provide UL 9540A test data which covers gas production and fire data from cell through to system level, this will be used as inputs for specific BESS system modelling. Safe BESS spacing is also validated during UL 9540A testing and / or 3rd party fire & explosion testing. NFPA 855 (2023) standards are also specified in outline Battery Fire Safety Management Plan, this code stipulates that BESS internal thermal insulation barriers must provide a minimum of 1-2 hours protection.
18.17	As part of the emergency planning phase the Councils will need to use this information to identify safe locations for our crews which will directly impact on their ability to tackle any fire present. It is understood that any fire within a BESS will be protracted and could last for a number of hours. It is noted as example that Hydrogen Fluoride has an Acute	The revised outline Battery Fire Safety Management Plan [**REP2-032**] includes Sunnica site indicative drawings which integrate fire brigade observation points, access roads and multiple BESS site entry / exit points. All relevant Fire & Rescue Services (FRS) will be consulted on site indicative designs and feedback will be used to finalise FRS facilities and infrastructure for Sunnica. BESS ventilation systems are a key safety feature. BESS ventilation and gas exhaust systems will be validated during BESS UL 9540A testing and / or 3rd party fire and explosion testing. At a minimum the exhaust system will conform to NFPA 69 explosion prevention standards as referenced in the outline Battery Fire Safety Management Plan.

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	Exposure Guideline Level (AEGL) 2 (Disabling) of 24 ppm at 60 minutes. The tests highlighted in the emissions report state 30 – 50 ppm at the exhaust throughout the duration of test. The ventilation status of the fire will also directly impact on the rate of release and concentration of toxic fumes present. This will need to be factored in for the specific design of the systems on site.	NFPA 69 exhaust rate is designed to keep gas level under 25% of LFL (Lower Flammable Limit) and exhaust gases away from BESS openings. Controlled and automatic removal of flammable gases protects first responders and toxic gases are removed in a controlled way allowing for dispersion modelling to be reliably integrated into Emergency Response Planning (ERP).
18.18	Any protracted incident that may cause harm to people or the environment may warrant a multi-agency response incorporating partners of the Local Resilience Forum. These partners will need to be fully engaged with during planning and prior to any commencement of construction. Detailed multi agency response plans based upon reasonable worse case scenarios will need to be created to inform local residents and identify suitable response for relevant agencies.	A multi-agency approach to response planning strategy is welcomed. If details of the Local Resilience Forum are shared, connections will be established to ensure full engagement moving forward for Sunnica site planning and emergency response consultation processes. The Applicant will amend the outline Battery Fire Safety Management Plan to include the Local Resilience Forum in the next iteration of the document.
18.19	The BESS fire in Arizona, 19 April 2019, also experienced a significant and sudden deflagration of the BESS unit. Although the final detailed analysis report is awaiting publication the initial fire report highlights the need to understand the true emission of	As referenced in the outline Battery Fire Safety Management Plane [**REP2-032**] the selected BESS system will have completed UL 9540A testing and / or 3rd party fire & explosion testing which quantifies gas emissions, monitors deflagration risks and validates BESS design structural integrity.

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	flammable gases in the event of a fire to support our response, as the potential for a deflagration/explosive event needs to be considered	
18.20	Within their Integrated Risk Management Plan the Councils plan for future development within the respective counties. Although mentioned within the Human Health chapter of the ES [APP-047], when forming the operational plans, it will be important to understand any committed building schemes that are in proximity to the BESS sites	A cumulative impact assessment has been undertaken as part of the ES. As such, committed building schemes have been considered. Appendix 16D [**REP2-064**] shows that there are no off-site impacts anticipated in the event of a BESS fire.
18.21	The fire and rescue service require detailed analysis of the environmental impacts of the sites, namely the battery units in event of fire. Consideration for the service in relation to its operational tactics will be based upon the components of any products of combustion and subsequently the water run off following application in the event of a fire. The Victoria big battery fire utilised approximately 900,000 litres of water to protect adjacent battery units.	The battery units have not yet been selected. The FRS will be fully informed of key BESS design features and will be able to devise operational tactics once the system is selected. The Emergency Response Plan will be drafted in consultation with the FRS. Table 4 of the revised outline Battery Fire Safety Management Plan [**REP2-032**] outlines the requisite abuse and fire test programs required for the BESS system which will inform water supply necessary for firefighting response. The outline Battery Fire Safety Management Plan also specifies capacity and indicative location of bunded lagoons to capture water run-off from firefighting. The indicative BESS site design also allows 6 metres spacing between BESS to reduce risks of fire spread to adjacent equipment, certification and test data must demonstrate that adjacent spacing can be reduced. FRS will wear full PPE equipment to protect against any toxic gas emissions which would be required for any lithium-ion battery system design. Bunded lagoon design will allow for easy analysis of water content and safe extraction by tankers if environmental pollution safety levels are exceeded.
18.22	The Councils will require fire and plume prediction models relating to the	The modelling presented in Appendix 16D [REP2-064] assumes a worst case scenario, and as such provides confidence that there will be no worse environmental impacts than those predicted.

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	specific systems to be created to understand the local impact of any smoke which will directly impact the response for the sites. This includes understanding the proximity of the Battery storage units to buildings, settlements and future planning considerations for the area. The Councils also have concerns with the containment of any such water run-off from fires, any suppression of fire gases or firefighting activities may lead to contaminated water run off which will need to contained for safe removal	However, Appendix 16D [REP2-064] commits to specific consequence modelling at the BESS detailed design stage if necessary. The outline Battery Fire Safety Management Plan also specifies capacity and indicative location of bunded lagoons to capture water run-off. BESS areas and drainage channels will integrate impermeable materials to ensure runoff water will not escape. Bunded lagoon design allows for easy analysis of water content and safe extraction by tankers if environmental pollution safety levels are exceeded.
18.23	When considering the environmental impact the Councils require detailed assessment of any environmental sensitivities that may be affected by any fire situation on sites. This will include ground receptors and detailed reports relating specifically to the impacts of fire gases to nearby residents, relating specifically to the systems being used on site.	Appendix 16D [**REP2-064**] presents the results of dilution modelling of a fire occurring at the BESS. While the precise details of the systems have not yet been defined, this is a realistic worst-case assessment and shows no off-site impacts from a fire.
18.24	It must be acknowledged firefighting tactics when dealing with BESS, in all of the potential configurations, are still evolving given the rate of technological change and unknowns when dealing with these relatively new risks. Whilst generic commonalities between incidents of similar types may be able	When the Sunnica BESS detailed design is selected, UL 9540A and 3rd party fire & explosion test data and gas emission data will be shared with the FRS to develop comprehensive firefighting tactics and Emergency Response Plans. In addition to the test data, the BESS battery OEM and Integrator will be expected to provide specific firefighting recommendations based on the official testing outcomes and additional internal testing data. This is established best practice within the BESS sector.

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	to be drawn to inform pre-planning, each incident is unique with multiple informing and influencing external factors. Therefore, it must further be acknowledged, environmental impact will need to be considered in relation to differing fire and rescue service tactics which may range from offensive (suppressing the fire) to defensive (controlled burning and boundary cooling) or somewhere in between.	Appendix 16D [**REP2-064**] does not consider any firefighting tactics, and predicts a dilution rate applied to an available store of pollutant (HF) that could be released within one hour. Worst case assumptions have been made in terms of temperature (and therefore dilution of the plume). The assumption is that up to five racks will be burning at any one time, and as the fire spreads the original rack burns out as the next alights. Thus the predicted concentrations are applicable to one hour of burn-time and longer burn times.
18.25	The final design and construction of the systems will directly impact our response arrangements. Within the considerations of the final design of the system, areas of specific interest for us include:	Noted.
18.26	Details on the specific safety and monitoring systems present throughout all stages of build, testing, maintenance and decommission. This is to take into account lessons learned from the Victoria Big Battery incident.	The outline Battery Fire Safety Management Plan [**REP2-032**] stipulates that IEC BESS site acceptance testing (SAT) and installation protocols will be followed at Sunnica. The outline Battery Fire Safety Management Plan also requires that NFPA 855 (2023) code is followed for all stages of commissioning and decommissioning. It defines minimum BESS system monitoring capabilities and Sunnica BESS will integrate these capabilities as a minimum requirement. Full utilisation of IEC and NFPA codes for BESS safety during the full lifecycle of the battery system, means monitoring systems are operational until BESS modules are fully decommissioned.
18.27	Ensuring all automatic systems, including all suppression systems and site infrastructure are operational prior	BESS monitoring systems will be fully operational during installation testing. If BESS installation and SAT protocols permit then suppression system will be active during BESS installation testing and will be fully engaged when operations commence.

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	to any power testing or operational use of the site.	
18.28	Design considerations in relation to the learning from Victoria report, UL9540A did not test to the wind speeds experienced on the Victoria fire. Full details regarding fire separation and venting systems to be provided and with emergency use plans included.	The ERP will include a full inventory of key mitigation and safety measures including BESS separation distances established from free burn fire testing, thermal insulation ratings and venting system details together with recommended first responder emergency response procedures.
18.29	The Councils note the inclusion of information on Table 3 item 7 relating to the water based suppression system, which is currently listed as a water mist system, Water mist systems are a different water based suppression technology to sprinklers in how they interact/suppress the fire. Water mist systems are far more bespoke as reflected in the relevant standards, which cite appropriate test protocols and data. The choice of water mist over sprinkler would need to be taken in liaison with a competent person who can relate the system choice to the risk identified and the duration of its required activation. This will directly impact the water provision for the sites. In addition, it would prove prudent to include a Fire and Rescue Services (FRS) inlet into the suppression system design as FRS	The water-based suppression system should be specifically tested with the BESS design during UL 9540A test and / or 3rd party fire & explosion testing. The revised outline Battery Fire Safety Management Plan [**REP2-032**] clarifies there is no preference for a water suppression system design at the moment. This will be agreed with the relevant local Fire & Rescue Services (FRS) at the time of selection. It is understood this process will also require evaluation by an independent fire protection engineer who will review the selected suppression system design and agree Sunnica water volume provision. The local FRS will be consulted on the need for FRS inlet into the suppression system when performance capabilities are quantified. This facility has not currently been requested.

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	can then supplement supply, where safe to do so.	
18.30	Any distance identified for separation of the units will need to be identified through the analysis by a competent fire engineer. There should be consideration for the fire separation internally and the total realistic load of fire.	Safe BESS equipment separation distances will be established through UL 9540A or 3rd party free burn testing as referenced in the outline Battery Fire Safety Management Plan [**REP2-032**]. The test data and site design spacing will be reviewed by an independent fire protection engineer and SFRS. This will be required by the FRS in their checks.
18.31	VESDA (Very Early Smoke Detection Apparatus) systems may be appropriate however the Councils are unaware of any studies that prove them the best system to use within the BESS environment. For example, due to risk of off gassing, are there any plans to include any gas monitoring equipment in and around the site to highlight levels of toxic gas release in the event of a fire? The Councils also require detail as to how the system will be monitored.	As outlined in the Battery Fire Safety Management Plan [**REP2-032**] Sunnica BESS fire protection design will follow NFPA 855 (2023) code. NFPA 855 identifies recommended detection products for BESS which includes a range of gas monitoring equipment. A range of NFPA recommended products will have been performance tested on the Sunnica BESS design during UL 9540A / 3rd party testing and certification. The most effective suite of detection products will be identified and integrated into the BESS design. NFPA 855 (2023) also defines minimum system monitoring capabilities which the Sunnica BESS system must comply.
18.32	The proposal includes the option to double stack containers. The fire services do not support this based upon the level of risk in relation fire loading, potential spread of fire and access.	There is no proposal to double stack BESS containers; this would exceed design height restrictions in the Design Parameters that are secured in the draft DCO. In any event, double stacking is not considered a safe configuration and will not be considered for the Sunnica design.
18.33	4.2.1 states the site is constructed to BS 9999 however this code does not	The BS 9999 building code reference is clarified in the revised outline Battery Fire Safety Management Plan and fully addressed in Sunnica's response to EXQ1 Q1.1.35.

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	contain BESS within its scope, it may be appropriate for the ancillary accommodation/structures e.g. offices and warehouse (depending on use) but not the BESS.	
18.34	Applicable Safety Standards – When selecting appropriate safety standards the Councils seek additional clarification regarding the specific relevance to BESS facilities. It is noted that there is significant text in the 'National forward' of the New BSI standard (BS EN 14972-3:2021 Fixed firefighting systems. Water mist systems.) that states the UK committee are of the opinion that BS EN 14972 does not meet all of the requirements that they would like to see, and are of the opinion it is 'sub-optimal' compared to the BS 8489 series, which does not have any test protocols for a BESS. It is most likely any water mist system will not take account of the effects of natural or artificial ventilation in this area which will still provide the greatest challenges for the effective application of mist.	We can confirm that the selected water suppression system design must be capable of operating in conjunction with a BESS gas exhaust / ventilation system. Exhausting flammable & toxic gases is a primary safety priority for Sunnica, this ensures safety of first responders and reduces the risk of BESS deflagration events. As specified in the outline Battery Fire Safety Management Plan [**REP2-032**] the water-based suppression system should be specifically tested with the BESS design during UL 9540A test (unit or installation level) and / or 3rd party fire & explosion testing. The 3rd party fire & explosion testing will provide free burn data which will be used to quantify suppression system performance capabilities.
18.35	There is clear relationship between the design of the system and the potential hazards and risks posed to responders and the local environment alike. Once	As clearly specified in the outline Battery Fire Safety Management Plan [**REP2-032**], the BESS system design, certification and testing data will be made available for discussion with all councils and relevant FRS. As laid out in the outline Battery Fire Safety Management plan, the selected BESS system design will need to demonstrate that environmental impacts and safety hazards are minimised.

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	further information is received regarding the system design and the appropriate evidenced based emergency mitigation solutions the Councils will be in a more informed position to advise further.	
App 26 (SLR1)	Using the "maximum parameters" is a reasonable methodology in the absence of exact data because this will likely represent the worst-case scenario. Once the details of the BESS are known, the assessment must be updated with the expected outcome.	At detailed design stage the parameters will be known and detailed consequence modelling will be undertaken if necessary, as set out in Appendix 16D [**REP2-264**].
App 26 (SLR2)	No evidence is presented to show that CO is not of concern. This may be because the Hazard Assessment of Lithium Ion Battery Energy Storage Systems found that "CO was detected in the first 30 minutes of the test and this decreased to near zero during the main period of self-sustaining combustion" but this is not clear and the assessment report appears to contradict itself on this issue. Evidence should be clearly presented to support a conclusion that CO is not of concern, or CO emissions should be modelled if it is of concern	CO will be produced especially during venting reactions. However, UL 2021 report for outdoor containerized BESS demonstrates that the risk is only in close proximity to BESS (<4-5 metres). The focus of the Unplanned Emissions Report is on impacts beyond the site boundary and at those distances, CO is not of concern. The risk is therefore mitigated by first responders wearing full PPE, as is their standard operating procedure. New NFFC guidance will be published in 2023 to establish standard operating procedures.. BESS design should integrate gas exhaust system which will discharge through the roof meaning risk is further reduced, as set out in the revised outline Battery Fire Safety Management Plan [**REP2-032**]. .

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App 26 (SLR3)	The effects of HF on ecological receptors have not been considered; this should either be assessed, or reasons should be given for not assessing this.	Effects on ecological receptors have not been considered, as effects of HF on ecological sites are considered to occur from long-term exposure (see IAQM Guidance (Holman et al (2020) A guide to the assessment of air quality impacts on designated nature conservation sites – version 1.1, Institute of Air Quality Management, London)). For a combustion process with a continuous or semi continuous emission to air it is usual practice to quantify these long term impacts of HF emissions on ecological sites. However, if a fire occurred at a BESS it would be a one-off short term event and should not be capable of causing chronic exposure that would cause significant impact at any ecological receptor.
App 26 (SLR4)	Section 3.2.2 explains the source has been modelled as a volume source. A volume source isn't necessarily representative in a fire scenario because the fire could be contained and the emissions could escape from small orifices. This use of a volume source for the model should be reviewed and addressed.	The dilution modelling presented in Appendix 16D [**REP2-264**] is a preliminary risk assessment. A volume source was considered to be more conservative in terms of dispersion than point or jet sources, due to the lack of buoyancy resulting in limited dilution and dispersion.
App 26 (SLR5)	Section 3.2.2 states the source has been modelled with "no initial vertical momentum". This isn't necessarily a conservative approach because: emissions from this type of source might not disperse very effectively and dispersal could be smaller a thermally-buoyant plume, however, could travel further with little dilution.	A hotter plume will travel further and disperse better before it reaches ground level as the heat gives it lift. All plumes disperse as they travel, although the amount of mixing is affected by the stability of the atmosphere. We have addressed this by considering 5 years of hourly sequential met data, and the results are the highest results generated under any of those conditions are the values reported, and do represent the conditions that provide the smallest amount of dilution. The proposed alternative approach is less conservative than the work that has been done.
App 26 (SLR6)	The emission parameters and model conditions are clearly listed in Table 2 and it is noted that these conditions have been used to make the model	ADMS doesn't model volume sources at ambient temperature. The volume source turns off all vertical buoyancy, and takes temperature out of the equation entirely. This is a typographical error in the report, and the data table should have said "not applicable".

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	conservative in its outputs. Table 2 notes an emission temperature of 15°C. Volume sources in ADMS are at ambient temperature by default, so the emission temperature would be the same as that in the met (i.e. weather) file for each hour, meaning it wouldn't be 15°C.	
App 26 (SLR7)	The assessment explains that the criteria for including building effects have not been met so are not included in the model. The assessment provides sound reasoning for selecting a surface roughness of 0.5m. As the batteries are housed in a solid structure, this could cause building downwash effects, which must be considered.	The purpose of using the module for building downwash effects within a model would be to better represent the proportion of an emission that begins to disperse from a height that is below the initial release height. By using a volume source without further consideration of building downwash the model approach generates higher ground level concentrations than could be produced by assuming initial vertical momentum in the plume and then applying building downwash effects. The proposed alternative approach is less conservative than the work that has been undertaken.
App 26 (SLR8)	The assumption of 5 racks doesn't appear to be evidenced however, so the applicant must justify why 5 racks is considered conservative. For instance, the incident report from the recent BESS fire in Victoria, Australia states that two Tesla Megapack BESS units were involved in a fire which lasted 6 hours, so is the 5 racks modelled conservative with this in mind?	The assumption relates specifically to the estimation of the rate of emission within a single hour. It may be that a fire would last for many hours but during those hours the emissions would be less than for the hour with the maximum emissions. Therefore this approach is inherently conservative. Several key arguments were presented and accepted for the Cleve Hill DCO. While we present the arguments afresh in this assessment, it is reasonable to flag that these arguments were tested and accepted through the Cleve Hill DCO process, therefore a similar approach can and should be taken for Sunnica. The Leclanche SA assessment, which was relied upon in the Cleve Hill examination, set out that in the case of a fire with no fire suppression system, it is likely that only 5 racks would be burning at any one time. This means that the whole size of the development is not relevant, as the time taken for the fire to spread means that only 5 racks will be alight at any one time. The 5 rack scenario represents a situation in which a fire is underway in 1 rack, the fire is just starting in 2 racks and is burning out in 2 racks. However, for all 5 racks the maximum emission has been

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		assumed even though for some of the racks, the emission will have already occurred in the past This principle is directly transferable to Sunnica or any other BESS site. .
App 26 (SLR9)	The figures for "Concentration of 2m x 2m x 2m volume at source" in Table 4 appear to be an emission rate in mg/m3/s and not the mg/m3 shown. If this is the case, it isn't clear that these values can be compared to the AEGL value as AEGL values are in mg/m3.	These values represent concentration (mg/m^3) at the edge of the source and are not the emission rate ($mg/m^3/s$).
App 26 (SLR10)	1. Once the details of the BESS are known, the assessment should be updated (this is noted in Section 4.1.8) 2. Evidence should be clearly presented to support the conclusion that CO is not of concern or CO should be modelled if it is of concern. 3. The use of a volume source should be reviewed and addressed. 4. Consider the possible building downwash effect of the batteries being stored in a solid structure and update the assessment where necessary.	1. Agreed, a consequence modelling exercise will be undertaken at detailed design if this is necessary. 2. CO is not of concern outside of the Order Boundary, see SLR2 above. 3. The use of a volume source provides a worst case assessment, see SLR4 and SLR5 above. 4. Building downwash would reduce the worst case assumptions, see SLR7 above. 5. Methodology is correct, units have not been mixed, see SLR9 above. 6. See SLR8 – the assumption of 5 racks is inherently conservative.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	5. Review the methodology to calculate dilution; mg/m^3/s appear to have been compared to mg/m^3 to assess this 6. Review whether 5 racks is a conservative assumption, update the model and assessment with more racks, and report increase in HF emissions.	

14 Chapter 19 Minerals and Waste

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
19.1 - End	Minerals and Waste	As acknowledged by Chapter 19 of the LIR, the Scheme will have no negative impact on any planned or operational minerals or waste facilities and will not lead to the sterilisation of consented or safeguarded mineral reserves. No further mitigation is considered necessary. No mineral extraction is proposed during construction of the Scheme. Proposals for the minimisation and management of waste in accordance with the Waste Hierarchy are included in the Framework Construction Environmental Management Plan (CEMP) [**APP-123**] and the Framework Decommissioning Environmental Management Plan (DEMP) [**APP-125**]. The Scheme is therefore compliant with the policy context described in Chapter 19 of the LIR, including polices that seek to protect safeguarded and consented mineral reserves from sterilisation, and policies that require the efficient use and management of waste and minerals.
19.24	Worlington Quarry and mineral resources	As stated by the LIR, the Scheme generally misses Worlington Quarry, both existing and proposed. The Scheme does overlap with the boundary of Worlington Quarry in one location, however as acknowledged in the LIR, the land affected by the overlap represents a small area in the southwestern corner of the quarry, as identified by the Restoration Overlap Plan [**APP-018**]. Paragraph 2.6.5 of Planning Statement Part 1 [**APP-261**] explains that mineral in this area has been identified by the quarry owner and operator as being either barren or not of sufficient quality or quantity to be viable for extraction. As such, the Scheme will not result in the sterilisation of consented mineral reserves within Worlington Quarry that would otherwise be extracted. The Scheme therefore accords with NPS EN-1 paragraphs 5.10.9 and 5.10.22, as well as the other local and national policies identified by the LIR, which seek to protect safeguarded and consented mineral reserves from sterilisation.
19.30	All structures including buildings, foundations, plant, and machinery should be removed within 12 months	Removal of buildings, foundations, plant, and machinery is secured by the Framework DEMP [**APP-125**]. Schedule 2, Requirement 22 of the Draft DCO [**APP-019**] provides for the Scheme to be decommissioned in accordance with a detailed DEMP, to be approved by the relevant host local planning authority/authorities. The DEMP must be submitted within 12 months of the date

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
	following the cessation of electrical generation and storage.	that the undertaker decides to decommission any part of the Scheme, and decommissioning must commence no later than 40 years following final commissioning of the Scheme. The DEMP is required to be substantially in accordance with the Framework DEMP (per Requirement 22) [**APP-125**].

15 Chapter 20 Cumulative Impacts

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
Table 14	Consideration of the significant number of large-scale solar and other energy projects in planning within the local area and region in combination with the Sunnica proposal opens some wider opportunities for skills, supply chain and local businesses. There are expected to be impacts on workforce availability to local/regional businesses and supply chain due to workforce displacement and churn, as a result of combination of Sunnica proposals and other solar and energy infrastructure developments in the wider local area.	An Outline Skills, Supply Chain and Employment Plan (OSSCEP) has been submitted as part of the DCO Application [**REP2-034**] and has been updated in response to previous representations. This seeks to secure the potential improvements, mitigation and compensation to local communities that could be implemented as part of the Scheme. The OSSCEP forms an outline basis for which positive outcomes and mitigation can be delivered, for taking forward further in a full Skills Plan to be developed and agreed with the LPAs, other key local stakeholders, and the community as necessary in advance of construction of the scheme commencing. Specific measures such as those referred to in the LIR can be discussed, confirmed and agreed in this full Skills Plan. This includes the ability to co-ordinate delivery of outcomes with other developers of solar and other energy developers across the region to capitalise on cumulative opportunities. The Applicant is in discussions with the councils regarding delivering wider community benefits in response to relevant representations and the potential provision of a Community Benefit Fund (CBF).
Table 14	Potential conflict with extant permission DC/15/2109/FUL at Bay Farm in Worlington.	Paragraphs 4.1.19 to 4.1.28 (and associated appendices) of the Written Summary of Sunnica Limited's Oral Submissions at the Development Consent Order Issue Specific Hearing on 1 November 2022 [**REP2-036**] address this point. The Applicant has reviewed the planning permissions for the anaerobic digestion (AD) plant at Bay Farm: Planning Permission DC/15/2109/FUL, granted in 2016 (the "2016 Permission"). Condition 2 of the 2016 Permission states that the sugar beet and maize feedstock for the AD plant shall only be sourced from the areas shown on the plan titled "Geographical extent of feedstock sources: S&PBay – 001 Revision A dated 17.02.16". The 2016 Permission was amended in 2019 non-material amendment permission NMA(A)/15/2109, and a further variation, DC/21/1535/VAR, was approved on 15 October 2021 (the "2021 Permission"). The subsequent planning permissions expanded the types of feedstock that are permitted to be used at the AD plant, with a greater reliance now on feedstocks other than sugar beet and maize (such as straw, spoiled straw from livestock enclosures, manure, and by-products of crops grown for the brewing and sugar industries). The

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		geographical location from where such feedstocks can be sourced is not restricted by the AD plant's planning permission. Whilst part of the Scheme is within the area identified on the "Geographical extent of feedstock sources: S&PBay – 001 Revision A dated 17.02.16" plan for where sugar beet and maize are to be sourced, the Applicant considers that there is no conflict with the extant 2021 Permission for the AD plant for the following reasons: (a) the 2021 Permission does not govern how the fields shown on the "Geographical extent of feedstock sources: S&PBay – 001 Revision A dated 17.02.16" plan are to be managed; in other words, the 2021 Permission does not control how each field is to be used, whether for growing sugar beet, maize or indeed another crop or another use. Therefore, regardless of the Scheme the farmers could decide to not grow sugar beet / maize; (b) in any event, the 2021 Permission does not require that a percentage of feedstock must come from sugar beet and/or maize. It follows, therefore, that there would be no breach of the 2021 Permission if no agricultural crops were used; (c) the 2021 Permission permits more than agricultural crops to be used in the plant, agricultural and industrial (non-waste) by-products are also permitted which can be delivered to the plant in accordance with the approved traffic management plan. Indeed, the variation of 2019 explained that the anaerobic digestion plant has a greater reliance on non-crop feedstocks. This is entirely permitted under the 2021 Permission – indeed 100% of the feedstock could come from non-crop feedstock; (d) the geographical extent plan is wider than just the land forming part of the Scheme; there remains land within the geographical area that can be used to grow sugar beet and/or maize. There are no other conditions attached to the 2021 Permission that would give rise to an incompatibility – the remaining conditions relate to HGV movements and security lights/floodlights. The Applicant has also been in discussions with Hugo Upton, of Bay Farm, who has confirmed via email that the Scheme will not affect Bay Farm's ability to provide maize to the AD plant:

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		"*Bay Farm currently provides the anaerobic digestion plant with an agreed volume of maize. Should the Sunnica Scheme receive consent, then we confirm that Bay Farm can still provide the agreed volume of maize from other fields within the approved geographical area*."
Table 15, Table 16 and 18	Cumulative Impacts – Solar and other energy developments in proximity to the Scheme. Cumulative Impacts – Energy NSIPs in the East of England listed on the Planning Inspectorate Website.	The schemes listed in Tables 15 (excluding Breach Solar Farm (21/00706/ESF)) are considered in Appendix 5A of the ES [**APP-055**]. Cumulative effects, taking into account these schemes, are assessed for each environmental topic area within each specialist chapter of the ES [**APP-038** to **APP-048**]. Cumulative effects are also considered within Chapter 17 Effect Interactions of the ES [**APP-049**]. An assessment of the cumulative effects of the proposed Breach Solar Farm (21/00706/ESF) has now been made and is included in Appendix A of the Relevant Representations response document [**REP1-016**]. In relation to Table 16 and 18, prior to submission of the Application, a comprehensive long list of cumulative developments was discussed and agreed with WSC and ECDC. A shortlist was identified based on the scale of the development, temporal overlap, and the cumulative development falling within the Scheme's Zone of Interest identified by the specialist topics. Given the above, the Applicant considers that the assessment of cumulative effects has been undertaken to a level of detail which allows an informed decision to be made on the potential significant cumulative effects of the Scheme.
Table 17	Cumulative Impacts – Non-energy developments in proximity to the Scheme	The cumulative impacts from the Scheme in combination with other schemes, including housing developments, in the area have been considered for all environmental disciplines. These assessments are presented within each of the technical chapters in the ES (Chapters 6 to 16 [**APP-038** to **APP-048**]) and Appendix A of the Relevant Representations response (for Land North of Acorn Way, allocation SA10(a)) [**REP1-016**]. The cumulative effects assessments identify some significant effects in the construction period of the Scheme as a result of a number of developments being under construction or in operation at the same time as the Scheme. These are summarised in Chapter 17: Effect interactions of the ES [**APP-049**]. No significant cumulative effects with other developments (including the nearby housing developments) have been identified during the Scheme's operation. Cumulative effects for decommissioning have not been assessed, as the cumulative developments within the study

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		area will have become part of the future baseline or been decommissioned in advance of this phase of Scheme. Prior to submission of the Application, a comprehensive long list of cumulative developments was discussed and agreed with WSC and ECDC. A shortlist was identified based on the scale of the development, temporal overlap, and the cumulative development falling within the Scheme's Zone of Interest identified by the specialist topics.
20.16-20.18	Transport Cumulative Effects	The improvements to the A11 Fiveways junction are intended to improve the operation of the junction. Therefore, those travelling to/from the scheme via the A11 Fiveways would benefit through the improvements of the Fiveways junction once those works have been completed. In the event of diversions or closure of the A11 or the Fiveways junction during construction period of that improvement scheme, the construction vehicles travelling to or from the Sunnica Energy Farm would follow the signposted diversions. Any diversions and traffic management that National Highways put in place for any works on the Strategic Road Network will need to be suitable to accommodate all traffic on the network, of which the proportion associated with Sunnica is minimal. It is therefore reasonable to conclude that the use us any diversionary routes would not result in additional impacts requiring assessment. In addition, National Highways has made the Applicant aware of plans for gap closures of the A11 between Red Lodge and Fiveways. The proposed scheme consists of three gap closures and is scheduled for 2022-2023. Given the scheduling of this scheme, it is likely to be complete prior to commencement of construction. In the event that it is delayed, construction traffic travelling to/from the Sunnica Energy Farm will follow any signposted diversions if required. As stated above, any diversions and traffic management that National Highways put in place for any works on the Strategic Road Network will need to be suitable to accommodate all traffic on the network, of which the proportion associated with Sunnica is minimal. It is therefore reasonable to conclude that the use us any diversionary routes would not result in additional impacts requiring assessment.

16 Applicant's Response to Annex D

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
Annex D	Transport – Detail of Assessment Methodology Disagreements	
	ES Chapter 13 - Transport and Access	
1.1	Change Request does not include an updated ES or TA.	The Applicant's Change Request [**AS-243**] sets out that the change would not be material, and that the TA and ES already present a worst-case scenario. Therefore, an updated ES or TA is not required.
1.3-1.4	Gaps in highway and NMU baseline survey data	The Applicant notes that SCC has used local knowledge and available data sources when considering NMUs. The Applicant has requested this data but SCC has not been able to supply the data or share any quantitative outputs of the data for the Applicant to verify it or form judgements in relation to it. The Applicant undertook PRoW surveys from 8th to 13th July 2022 as detailed in the Transportation Technical Note [**REP2-041**] submitted at Deadline 2. The following PRoWs were surveyed: • PRoW 204/1 • PRoW 35/10 • PRoW 92/19 • U6006 Elms Road near Red Lodge • PRoW 49/7 The results of the PRoW surveys identified a low number of daily users of the PRoWs. As a result, and taking account of the July 2022 surveys, the conclusion presented in the Transport Assessment and Transport and Access chapter of the ES [**APP-117**] remains unchanged and it was concluded that there would be no significant adverse impact on NMUs as a result of the PRoW closures during the construction period. It was agreed between the Applicant and the Local Highway Authorities that there are areas where additional traffic data would increase the level of

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		confidence in the conclusions through providing a more comprehensive coverage of data. These locations are as follows: • La Hogue Road; • Elms Road (to the west of the A11 Northbound Off-Slip T-Junction); • Freckenham Road; and • A142 and Burwell. The Local Highway Authorities were unable to provide any additional data. Additional traffic surveys were therefore carried out from Thursday 7th to Wednesday 13th July 2022, with the LHAs provided with an opportunity to comment on the survey scope (no comments were received). The traffic surveys included Elms Road, the A11/Elms Road T-Junction, La Hogue Road and Freckenham Road. It was agreed with the Local Highway Authorities that there was no additional data requirement for the A142 and Burwell, given low number of staff and HGVs. The analysis applied within Chapter 13 – Transport and Access of the ES [**APP-045**] has been updated using the July 2022 survey data. This includes severance, driver delay and fear and intimidation. The results of the updated analysis indicate that in the AM and PM development peak hours the links in question are forecast to have either a negligible or minor adverse impact in terms of severance, pedestrian delay, pedestrian / cycle amenity and fear and intimidation. This is not considered to be significant in EIA terms and therefore does not alter the conclusions of the ES or TA. Further details on the additional traffic surveys and the EIA analysis are provided in Section 4 of the Transportation Technical Note [**REP2-041**].
1.5	Staff home locations	The Applicant notes the comments made in the Socio-Economics Chapter of the LIR directs the reader to the response to that section. The uncertainty is noted, and is the case for any major development at this stage of planning. The Local Authorities' position appears to be that the number of homebased workers has been overestimated and this may mean that additional workers would come in from outside the study area. If some workers travel from further afield on a daily basis, these workers would use the Strategic Road Network to access the staff car parks on La Hogue Road and Elms Road, which would likely result in a lower proportion of staff using local roads.

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		As set out in our response [to 13.1.120], the Applicant is prepared to introduce a cap on vehicle numbers using each of the staff car parks, to provide a level of control against potential uncertainty. This addresses potential mode share risks raised by the LHAs, and provides added certainty on the validity of conclusions. This will be addressed in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**] that the Applicant proposes to submit in Deadline 3.
1.6	Saturday assessment	The potential requirement for a Saturday assessment was raised by the LHAs through their Relevant Representations, and discussed in further meetings. The LHAs concern was whether there was a scenario where construction flows and baseline flows combined were likely to be higher than in the weekday assessment, and not whether there would be a higher proportionate impact. In order to address this, the Applicant has confirmed that Saturday working hours will be 0700-1900 hours, as per weekdays, and commissioned additional traffic surveys to make a weekday to Saturday comparison. These working hours are provided for in the Framework Construction Environmental Management Plan [**APP-123**] and the updated version [**REP2-026**]. Requirement 14 in Schedule 2 to the draft DCO requires that no phase of the authorised development can commence until a CEMP has been approved by the relevant authority (or authorities), and the CEMP must be substantially in accordance with the Framework version. Additional traffic surveys were carried out between Thursday 7th to Wednesday 13th July 2022 at the following locations, which were chosen as additional data collection in these locations would provide additional confidence in the conclusions drawn in the ES: • Elms Road; • A11/Elms Road T-Junction; • La Hogue Road; and • Freckenham Road. A comparison of the Saturday traffic flows, and weekday average traffic flows has been undertaken.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		During the survey period, the Saturday traffic flows were consistently lower than the average weekday traffic flows in each and every instance. Further information on this review of Saturday traffic data can be found in Section 4 of the Transportation Technical Note [**REP2-041**]. Cycles were also recorded by the surveys and showed the following: • Elms Road: Similar levels of daily cycles were recorded on this road on the surveyed Saturday (13 cycles) than on the weekdays (11 cycles). There were no cycles recorded on the Saturday during the AM development peak hour and one cycle recorded during the PM development peak hour. • A11/Elms Road T-Junction: No cycles were recorded using the A11 slip road. • La Hogue Road: During the survey period no cycles were recorded using La Hogue Road excluding Sunday, when there will be no construction traffic. • Freckenham Road: A greater level of cycles were recorded on this road on the surveyed Saturday (23 daily cycles) than on the weekdays (14 daily cycles). However, this remains at a low level when considered across a daily period. There were two cycles recorded on the Saturday during the AM development peak hour and no cycles recorded during the PM development peak hour. Therefore, the impact on NMUs on Elms Road will be the comparable on a Saturday as it is on the weekdays which has been assessed. La Hogue Road did not have any recorded cyclists during the Saturday and therefore a Saturday assessment for the NMUs is not considered necessary. Freckenham Road did record more cyclists during the Saturday than on the weekdays, however the total level of cyclists remains low. It is also noted that the additional analysis does not identify any additional effects which would be significant in EIA terms and therefore does not alter the conclusions of the ES or TA.
1.7	Operational assessment – wholesale replacement of solar panels	As requested, the Applicant can confirm that there is no likelihood of significant maintenance such as wholesale replacement of solar panels or batteries during the operational phase. As set out in the response above to point 13.92, Chapter 3: Scheme Description of the ES [**APP-035**] sets out at paragraph 3.2.4 that the operational life of the Scheme is 40 years. As set out by paragraph 6.3.23 of Chapter 6: Climate Change of the Environmental Statement [**APP-038**], an indicative solar PV module type has been considered, which would have a warranty covering the first 30 years. The paragraph goes on to explain that PV panel degradation over time (from 0-40

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		years) has also been factored into calculations for the performance of the Solar PV modules in assessing the climate change impact of the Scheme. It would not be an efficient use of resources to arbitrarily require the decommissioning of an operational solar farm after 25 years, which would be 15 years before the end of its design life and 5 years before the end of the warranty period for the solar PV arrays. Therefore, no wholesale replacement of solar PV arrays is anticipated. In any case, the DCO application seeks authorisation to construct, operate and maintain the Sunnica Energy Farm. Article 2 of the draft DCO [**APP-019**] defines the meaning of "maintain" in the draft DCO. This sets out that the definition does not include removal, reconstruction or replacement of the whole of the authorised development. Article 5(3) of the draft Development Consent Order [**APP-019**] also sets out that the carrying out of any maintenance works which are likely to give rise to any materially new or materially different effects that have not been assessed in the Environmental Statement would not be authorised. Therefore, the substantial replacement of solar array equipment would not be authorised by the DCO if it would lead to any materially new or materially different effects to those assessed by the Environmental Statement, including operational impacts on themes such as Traffic and Transport and Socio-economics.
1.8-1.9	Study Area	The link assessed in the Transport and Access Chapter of the ES [**APP-045**] is provided in Section 2 and Appendix A of the Transportation Technical Note [**REP2-041**] submitted at Deadline 2. The analysis to calculate the percentage impact for roads where baseline traffic is available is presented in Table 13-29 and 13-30 in the Transport and Access Chapter of the ES [**APP-045**]. Where baseline traffic data is unavailable professional judgement has been applied based on the development trip generation and likely impact. Links have only been "scoped out" of the assessment without a percentage calculation where the development trip generation is very low, as set out below. The majority of traffic is forecast to use the two main accesses (Sunnica East Site Access C and Sunnica West Site Access A). Site accesses E, F, G and H are forecast to only have HGVs and mini-buses as no staff travel to these accesses independently. The external mini-bus trips are discussed in Section 6 of the Transportation Technical Note [**REP2-041**] submitted at Deadline 2. The external mini-bus trips represent a separate effect, in a separate time period, which will be substantially lower than the impact assessed with the Transport and Access chapter of the ES [**APP-045**]. The volume of trips, i.e. a maximum of 59 trips spread across multiple routes, remains substantially lower than the peak hour construction

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		flows. Furthermore, these movements will occur at an off-peak time, when traffic volumes are significantly lower than network peaks. Therefore, the forecast external mini-bus movements are not expected to have a significant impact on the operation of local junctions given the low number of forecast vehicles, the multiple locations travelling to/from and the time the mini-buses will be on the local highway network. In terms of HGVs, the peak forecast of daily HGVs on the local roads is illustrated in Plate 2 of the Transport Assessment [**APP-117**]. This illustrates that to travel to Sunnica East Site Accesses E and F, 17 daily HGV are forecast on Ferry Lane during the peak construction period and 14 daily HGVs are forecast on Beck Lane. This equates to between one and two HGVs per hour on these roads over a 10-hour delivery window. Site Access G is not for HGVs and therefore there will not be a HGV construction impact at this location. Sunnica East Site Access D and H are located on Newmarket Road, as illustrated in Plate 2 of the Transport Assessment [**APP-117**], these accesses are forecast to have 12 daily HGVs during the construction peak. This equates to circa one HGV per hour over a 10-hour delivery window. This is not considered to result in a significant impact on the Newmarket Road.
1.10	HGV profile	The Applicant notes the Council's view that applying an even distribution for the temporal profile is unsubstantiated. The profile is based on years of experience of major construction projects and EIA development across the UK, on which even profiles avoiding peak hours is a typical and standard method. To provide additional confidence, at the request of the Councils, the Applicant has presented two additional scenarios based on observed movements at Hinkley Point C (HPC). The HPC evidence does not substantiate the Council's unevidenced view on likely profile of construction movement, instead showing fluctuating but relatively consistent levels of HGVs between 0700 and 1800. The analysis is presented in Section 5 of the Transportation Technical Note [**REP2-041**] submitted at Deadline 2, and concludes that there would be no new significant effects as a result of a realistic alternative profile being applied. The Applicant has considered the increase in daily HGVs on the local highway network as outlined in paragraph 3.6 of the Guidance of Environmental Assessment of Road Traffic (GEART) in Table 6-3 of the Transport Assessment [**APP-117**].
Table xx.x Sensitivity and	Link sensitivity classification	Following the submission of the DCO application, the LHAs raised general concerns on the link sensitivity classification. The Applicant has requested the LHAs to provide specific feedback on the links that they did not agree with the classification provided. This was requested and agreed to

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
Magnitude of Impact of Links		be provided at a meeting 26/04/22. SCC provided a table of links and proposed NMU and highway sensitivity classifications on 17/10/22. CCC has not provided a response to the Applicant at the time of writing. The Applicant has prepared a technical note in response to SCCs suggested link classifications which is provided as an appendix to this response. The Applicant's position is that the link sensitivity classifications set out in the Transport and Access ES Chapter [**APP-045**] remain robust and accurate in line with the IEMA Guidance. Notwithstanding this, the Technical Note reviews comprehensively SCC's rationale for the change in link sensitivity, including highlighting the potential change to classification of effect and therefore significance in EIA terms. There would not be any new significant effects or further mitigation requirements as a result of this analysis.
	Magnitude of Impact	
1.15	Car occupancy assumption	The car occupancy factor has been discussed extensively though a series of meetings, and the Applicant has presented and supplied substantial additional analysis on the subject, which is set out in the Transportation Technical Note submitted at Deadline 2 [**REP2-041**]. In short, the 1.5 car occupancy parameter is robust when considering a whole range of major construction projects including solar and wind. To provide additional confidence in the conclusions, a sensitivity test of 1.3 vehicle occupancy was provided, based on the highest car mode share of all projects examined. This showed that there would be no new significant effects if a 1.3 vehicle occupancy was applied. Notwithstanding this, The Applicant notes the Council's position that they would accept the methodology if suitable monitoring, reporting and controls are embedded in the project. The Applicant is confident in the methodology and the assessed numbers represent a robust assessment. Furthermore, the FTP [**AS-301**] sets out the measures by which the car driver mode share will be achieved. The Applicant will update the Framework Construction Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**] at Deadline 3, to include a commitment to monitor total vehicle levels at the two main staff accesses, and introduce a cap in vehicle numbers calculated at the level of a 1.3 vehicle occupancy to ensure the maximum assessed level of vehicle trips is not exceeded. Capping based on vehicle numbers, rather than car occupancy, addresses the crux of the parameter for which control is sought, whilst enabling the applicant to achieve this through

<table>
<tr><th>LIR Summary Reference (Para)</th><th>Summary of LIR Comment</th><th>Applicant’s Response to LIR</th></tr>
<tr><td></td><td></td><td>other measures, such as the mini-bus which is set out in the Framework Construction Traffic Management Plan and Travel Plan.</td></tr>
<tr><td>1.16</td><td>Caution required on conclusions due to limited data collection</td><td>The Applicant discussed and agreed the data sources with the Local Highways Authorities through the scoping process, noting the limitations of data collection due to the effects of Covid. Post-application, further data collection has been discussed, agreed with the LHAs, and undertaken. This is discussed in depth in the Transportation Technical Note [REP2-041] submitted at Deadline 2, including reviewing the implications of new data in terms of the assessment of effects. No significant effects have been identified as a result of data collected post-application.

The Applicant has recognised the need for caution in environmental assessment, and has ensured that the assessment presented is robust and based on a worst-case scenario.</td></tr>
<tr><td>1.17</td><td>Development peak hour conversion factors</td><td>As set out in section 3.4 of the Transport Assessment [APP-117], due to the lack of available traffic data at the time of producing the Transport Assessment [APP-117] and Covid restrictions preventing any new traffic surveys being undertaken, development peak hour conversion factors were calculated using available traffic survey data for Warren Road and Market Street which covered development and network peak hours. These are comparable locations and are within close proximity to the site and the affected local highway network.

In order to calculate the AM development peak hour conversion factors, the two-way traffic flows at 06:00-07:00 were divided by the 08:00-09:00 two-way traffic flows. The same process was undertaken in the PM peak hour for 19:00-20:00 and 17:00-18:00. The raw numbers for these calculations are provided below.

<table>
<tr><th rowspan="2">Time</th><th>Warren Road - 5 day average traffic flows</th><th rowspan="2">Conversion Factor</th></tr>
<tr><th>2 -Way</th></tr>
<tr><td>0600-0700</td><td>163</td><td>0.4</td></tr>
<tr><td>0800-0900</td><td>404</td><td></td></tr>
<tr><td>1700-1800</td><td>409</td><td></td></tr>
</table>
</td></tr>
</table>

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR

1900-2000	164	0.4

The conversion factor derived from the ATC on Warren Road, Red Lodge has been applied to the following junctions given its close proximity to Red Lodge, Kennett and Chippenham and similar characteristics:

- Red Lodge Dumbbell Roundabouts;
- B1506 Bury Road / Herringswell Road / Gazeley Road;
- B1085 High Street / B1104;
- B1102 Mildenhall Road / B1085 Chippenham Road;
- B1102 Mildenhall Road / B1104; and
- B1102 / B1104 Station Road

	Market Street - 5 day average traffic flows	
Time	**2 -Way**	**Conversion Factor**
0600-0700	81	0.5
0800-0900	167	
1700-1800	346	
1900-2000	157	0.5

The conversion factor derived from the ATC on Market Street, Fordham has been applied to the traffic survey data for the following junctions:

- A142 Fordham Road/Snailwell Road/Landwade Road Roundabout; and
- A14 Junction 37

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
1.18	Management of HGVs	The Chapter 7 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**] sets out measures to control the arrival and departure of HGVs for the site. The timing restrictions are: a. No arrivals or departures on a Weekday between 08:00 and 09:00, and between 17:00 and 18:00; b. No arrivals or departures on a Saturday before 08:00 or after 13:00; and c. No arrivals or departures on Sundays or public holidays. No HGV deliveries will be programmed outside of staff working hours, i.e. before 0700 hours or after 1900 hours on a weekday, in addition to the restrictions above. The Framework Construction Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**] will be updated to reflect this at Deadline 3. Thus there will be no HGV movements in the peak construction traffic hours of 0600-0700 hours and 1900-2000 hours. A Delivery Management System will be implemented to control bookings of HGV deliveries from the start of the construction period. This will be used to effectively plan all HGV deliveries in accordance with the construction programme, regulate the flow of HGVs via timed delivery slots and monitor compliance of HGV routeing. The ES assesses a worst-case scenario in terms of maximum HGV numbers per hour in the assessment of the HGVs which would be generated by the scheme. There is no requirement to introduce a control on the maximum number of HGVs per hour as the assessment is robust and it would be unduly onerous on the Applicant to do so. A Traffic Management and Monitoring System (TMMS) will be developed. The TMMS will provide details of the technologies and other means employed to monitor HGVs to/from the development site (e.g. Global Positioning System (GPS), Automatic Number Plate Recognition (ANPR)). This will enable the Applicant to monitor the following: a. Compliance with the HGV routes; b. Compliance with the number of HGV limits in terms of number of deliveries arriving and departing at any one time and over the course of the day; and c. Compliance with the timing restrictions.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
1.19	Workforce car occupancy and monitoring	The Applicant will monitor and cap the number of staff vehicles travelling to the site based on peak construction flows at 1.3 occupancy, as per the sensitivity test presented in the Transportation Technical Note [**REP2-041**] submitted at Deadline 2. This is due to the 1.3 car occupancy sensitivity test not showing a greater impact on the local highway network and did not change the conclusions of the assessments undertaken. This will be established in an update to the Framework Construction Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**] at Deadline 3. As set out in paragraph 8.2.2 of the Framework Construction and Traffic Management Plan and Travel Plan [**AS-300**, **AS-301**], any breaches or incidents will be reported.
1.20	Mini-bus impact	As set on in paragraph 6.4.1 of the Transport Assessment [**APP-117**], the peak number of external mini-bus trips are forecast to be 59 (single direction) on the local highway network. This is based on the peak number of staff in month nine. On average across the construction period 27 mini-bus trips (single direction) are forecast daily on the local highway network. This is in relation to the mini-bus trips required to transport staff from the two centralised car parks to the construction zones. The forecast external mini-bus trips are expected to occur prior to the AM network peak hour (08:00-09:00) and after the PM peak hour (17:00-18:00). The forecast mini-bus movements are not expected to have a significant impact on the operation of local junctions given the low number of forecast vehicles. Further details regarding the mini-bus movements are provided in Section 6 of the Transportation Technical Note [**REP2-041**] submitted at Deadline 2.
1.21	HGV daily profile	The local highway authorities raised a question regarding the use of a flat profile for HGV movements. Based on professional experience, applying a flat hourly profile approach is both commonly taken and a reasonable assumption. Furthermore, the use of an even distribution to identify a peak hourly flow of HGVs is considered robust as it excludes the two network peak hours. Analysis is provided within the Transportation Technical Note [**REP2-041**] regarding the application of different varying hourly profiles. It is concluded the difference in hourly distribution identified is a negligible difference and the assumption made for the purposes of the Transport and Access ES [**APP-045**] is reasonable as the conclusions of the assessment would remain unchanged.
1.22	Traffic Flow Tables	Please see response to 1.49 for the updated B1104 Station Road / B1102 junction 2023 baseline traffic flows to replace the traffic flows in Table 13-15 and 13-17 of the Transport and Access

<table>
<tr><th>LIR Summary Reference (Para)</th><th>Summary of LIR Comment</th><th>Applicant’s Response to LIR</th></tr>
<tr><td></td><td></td><td>chapter of the ES [APP-045]. It is important to note that, despite the highlighted textual errors set out in the LIR, the conclusions drawn within the ES were based on correct traffic forecast, and therefore remain valid.

The 2023 baseline A142 off-slip road traffic flows at the A14 J37 in Table 13-15 in the Transport and Access chapter of the ES [APP-045] were transcribed into the wrong columns. The table has been updated below, however, this does not impact or change the conclusions of the Transport and Access chapter of the ES [APP-045].
<table>
<tr><th rowspan="2">Location</th><th colspan="2">2023 AM Peak (06:00-07:00)</th><th colspan="2">2023 PM Peak (19:00-20:00)</th></tr>
<tr><th>NB / EB</th><th>SB / WB</th><th>NB / EB</th><th>SB / WB</th></tr>
<tr><td>A142 Fordham Road (North)</td><td>390</td><td>468</td><td>521</td><td>474</td></tr>
<tr><td>A14 WB Off-Slip (East)</td><td>N/A</td><td>223</td><td>N/A</td><td>221</td></tr>
<tr><td>Fordham Road (South)</td><td>312</td><td>443</td><td>514</td><td>378</td></tr>
<tr><td>A14 EB Off-Slip (West)</td><td>232</td><td>N/A</td><td>225</td><td>N/A</td></tr>
</table>
The traffic flows have been reviewed for the Dane Hill Road / Turnpike Road Roundabout in Table 13-15 in the Transport and Access chapter of the ES [APP-045] and no updates are required.

The traffic flows have been reviewed for Landwade Road in Table 13-15 in the Transport and Access chapter of the ES [APP-045] and no updates are required.</td></tr>
<tr><td>1.23</td><td>Table 13-29</td><td>The forecast construction staff at the B1506 Bury Road / Herringswell Road / Gazeley Road junction presented in Table 13-29 in the Transport and Access chapter of the ES [APP-045] has been reviewed and has been updated below.</td></tr>
</table>

<table>
<tr><th>LIR Summary Reference (Para)</th><th>Summary of LIR Comment</th><th>Applicant’s Response to LIR</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th rowspan="2">Location</th><th colspan="2">AM Peak Staff Vehicles</th></tr>
<tr><th>NB / EB</th><th>SB / WB</th></tr>
<tr><td>B1506 Bury Road (East)</td><td>0</td><td>144</td></tr>
<tr><td>Gazeley Road (South)</td><td>11</td><td>0</td></tr>
<tr><td>B1506 Bury Road (West)</td><td>0</td><td>71</td></tr>
<tr><td>Herringswell Road (North)</td><td>85</td><td>0</td></tr>
</table>

The correct traffic flows have been used to undertake the car occupancy sensitivity tests outlined in Section 3 of the Transportation Technical Note [REP2-041] submitted at Deadline 2 and therefore, the conclusions of the Transport and Access chapter of the ES [APP-045] remain valid.</td></tr>
<tr><td>1.24</td><td>Link sensitivity</td><td>Following the submission of the DCO application, the LHAs raised general concerns on the link sensitivity classification. The Applicant has requested the LHAs to provide specific feedback on the links that they did not agree with the classification provided. This was requested and agreed to be provided at a meeting on 26 April 2022. SCC provided a table of links and proposed NMU and highway sensitivity classifications on 17 October 2022. CCC has not provided a response to the Applicant at the time of writing. Therefore, it is clear that the Applicant has sought to agree link sensitivity with the LHAs. Furthermore, information discussed and provided through multiple meetings over the period April to October 2022 has provided assurance to the LHAs that they can rely upon the assessment of the traffic impacts of the scheme. However, it is noted that at 1.24 the LHAs consider the LIR a starting point for discussion on impacts. The Applicant will continue to work towards agreement on these points, and is grateful to SCC for their views on link sensitivity.

Due to the length of response required, the Applicant has prepared a Technical Note on this point which it appends to this Response. This sets out the following</td></tr>
</table>

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		The Applicant disagrees with the suggested changes in link sensitivity classifications in a number of locations. This is clearly justified and evidenced with regards to the agreed criteria for link sensitivity. There are many locations where SCC suggest a change in sensitivity there would be no change in the significance of effect. This is reported factually, without comment as to whether or not the Applicant agrees, as the outcome is immaterial. Overall, the Applicant's position is that it has considered SCC's recommendations on link sensitivity and concluded that there would be no additional significant effects.
	Appendix 13B - Transport Assessment	
1.26-1.28	Data collection	At the time that the Transport Assessment [**APP-117**] was being prepared (2020 / 2021) it was not appropriate to collect traffic survey data due to the impact lockdowns had on traffic flows as a result of the Pandemic. A comparison of September 2019 and September 2020 traffic flows was undertaken of available traffic data in close proximity to the Scheme on the Strategic Road Network and local highway. The comparisons outlined in Table 3-14 and Table 3-15 in the Transport Assessment [**APP-117**] indicate that the 2020 traffic flows were lower than the 2019 traffic flows and therefore the pre-Covid traffic data is considered robust. The potential requirement for additional data collection has been discussed with the LHAs. It is considered that the data which has been used to underpin the ES is sufficiently robust in quality and coverage, however there has been some discussion regarding areas where increased coverage of traffic surveys would provide additional confidence in the conclusions drawn within the ES. These locations were Elms Road, the A11/Elms Road T-Junction, La Hogue Road and Freckenham Road. Traffic surveys were carried out between Thursday 7th to Wednesday 13th July 2022. No additional traffic surveys are proposed to be undertaken at locations where 2016-2019 traffic survey is available as the baseline data has been shown to be fit for purpose and there is no further need to increase the geographical coverage of data. Further information on the additional traffic survey is provided in Section 4 of the Transportation Technical Note [**REP2-041**]. A comparison has been undertaken of the 2022 and 2019 traffic data for the A11 and A14 near the Proposed Scheme. These locations have been chosen as they are the closest parts of the Strategic Road Network to The Scheme, for which there is comprehensive and comparable data available to monitor changes in traffic flow levels over time. Traffic data has been obtained from WebTRIS for locations which have both 2019 and 2022 data available to determine if traffic flows have returned to pre-Covid levels. Traffic data for 2022 was only available up to August. The

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		January to August 24 hour Average Daily Traffic (ADT) and 18 Hour Average Weekday Traffic (AWT) has been used for the comparison as this data is available for both years. This comparison indicates that 2022 traffic flows on the A11 and A14 between January and August are between 5% to 12% lower than the January to August 2019 average. Therefore, the September 2019 traffic flows used in the Transport Assessment and Transport and Access Chapter of the ES are robust. Further details on this review can be found in Section 4 of the Transportation Technical Note [**REP2-041**].
1.29	Traffic flow	The methodology for deriving local development peak flows from network peak flows is detailed in the response to 1.17.
1.30	Traffic impact	Response is provided in 1.31 to 1.45 below.
1.31-1.34	Red Lodge Dumbbell Roundabout North	Further clarifications have been provided on the potential reduction incapacity at the Red Lodge Dumbbell Roundabouts in response to 13.46 in the Chapter 13 response.
1.35-1.38	Red Lodge Dumbbell Roundabout South	Further clarifications have been provided on the potential reduction incapacity at the Red Lodge Dumbbell Roundabouts in response to point 13.46 in the Chapter 13 response.
1.39-1.41	B1056 Bury Road / Herringswell Road / Gazeley Road	Further consideration has been given to the increase in right turning movement into Herringswell Road. Junction capacity modelling has been undertaken for the B1506 Bury Road / Herringswell Road / Gazeley Road junction using Junctions 9 software to assess how the junction will operate in 2023 with the additional construction staff vehicles. The junction modelling indicates that the increase in right turning traffic from the B1506 Bury Road into Herringswell Road in 2023 due to the construction of the scheme is not forecast to cause this junction to operate over capacity or result in significant queuing and delays. Further details are provided in the response to point 13.46.
1.42-1.45	A14 Junction 37	The potential for the construction of the scheme to result in reduced capacity at the A14 Junction 37 has been discussed in the response to point 13.46.
	Trip calculation and assignment	

<table>
<tr><th>LIR Summary Reference (Para)</th><th>Summary of LIR Comment</th><th>Applicant’s Response to LIR</th></tr>
<tr><td>1.46-1.48</td><td>Working hours</td><td>The working hours are secured through the Framework Construction Environmental Management Plan [REP2-026], see paragraph 2.3.1. Compliance with the measures set out in the Framework Construction Environmental Management Plan are secured through requirement 16 to the draft DCO.</td></tr>
<tr><td>1.49</td><td>B1102 / B1104 Traffic Flows</td><td>The AM peak 2018 traffic flows for the B1102/B1104 in Table 3-4 of the Transport Assessment [APP-117] had a transcription error and the updated traffic flows are provided in the table below. It is important to note that, despite the highlighted textual errors set out in the LIR, the conclusions drawn within the ES were based on correct traffic forecast, and therefore remain valid.
<table>
<tr><th rowspan="2">Location</th><th colspan="2">2018 AM Peak (07:30-08:30)</th><th colspan="2">2018 PM Peak (16:45-17:45)</th></tr>
<tr><th>NB / EB</th><th>SB / WB</th><th>NB / EB</th><th>SB / WB</th></tr>
<tr><td>B1104 Station Road (North)</td><td>101</td><td>218</td><td>213</td><td>60</td></tr>
<tr><td>B1102 (East)</td><td>130</td><td>180</td><td>181</td><td>161</td></tr>
<tr><td>B1102 (South)</td><td>181</td><td>348</td><td>353</td><td>180</td></tr>
</table>
The updated 2019 AM peak traffic flows for the B1102/B1104 junction presented in Table 3-9 of the Transport Assessment [APP-117] are outlined below.
<table>
<tr><th rowspan="2">Location</th><th colspan="2">2019 AM Peak (06:00-07:00)</th><th colspan="2">2019 PM Peak (19:00-20:00)</th></tr>
<tr><th>NB / EB</th><th>SB / WB</th><th>NB / EB</th><th>SB / WB</th></tr>
<tr><td>B1104 Station Road (North)</td><td>41</td><td>89</td><td>87</td><td>24</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>LIR Summary Reference (Para)</th><th>Summary of LIR Comment</th><th>Applicant’s Response to LIR</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>B1102 (East)</td><td>53</td><td>74</td><td>74</td><td>66</td></tr>
<tr><td>B1102 (South)</td><td>74</td><td>142</td><td>144</td><td>73</td></tr>
</table>
The updated 2023 AM peak traffic flows for the B1102/B1104 junction presented in Table 3-17 of the Transport Assessment [APP-117] are outlined below.
<table>
<tr><th rowspan="2">Location</th><th colspan="2">2023 AM Peak (06:00-07:00)</th><th colspan="2">2023 PM Peak (19:00-20:00)</th></tr>
<tr><th>NB / EB</th><th>SB / WB</th><th>NB / EB</th><th>SB / WB</th></tr>
<tr><td>B1104 Station Road (North)</td><td>44</td><td>95</td><td>93</td><td>26</td></tr>
<tr><td>B1102 (East)</td><td>57</td><td>79</td><td>79</td><td>70</td></tr>
<tr><td>B1102 (South)</td><td>79</td><td>152</td><td>153</td><td>78</td></tr>
</table>
</td></tr>
<tr><td>1.50-1.53</td><td>Traffic flows</td><td>The traffic flows in Table 3-12 of the Transport Assessment [APP-117] are the forecast 2019 traffic flows for the Dane Hill/Turnpike Road Roundabout. These traffic flows were taken directly from the ‘Forest Heath District Council Site Allocation Plan Cumulative Impact Study’ document (August 2016), which was prepared by AECOM for the Forest Heath Local Plan assessment.

Table 3-17 in the Transport Assessment [APP-117] identifies the 2023 local highway traffic flows for the development peak hours (06:00-07:00 and 19:00-20:00). These are based on the 2016-2018 traffic survey data, TEMPro growth factors and the conversion factors. The TEMPro growth factors set out in section 3.4 of the Transport Assessment have been applied to the 2016, 2017 and 2018 traffic data to calculate 2023 traffic flows.

The Figures in Annex F of the Transport Assessment [APP-117] were produced before the access arrangement for the site was finalised. The main site access for the Sunnica East Site was from the west of Elms Road in a previous iteration of the site access plan. The traffic flow diagrams in Annex F are illustrative and the traffic flows at the site access are correct. The Construction</td></tr>
</table>

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		Traffic Management Plan and Travel Plan [**AS-300, AS-301**] will be updated at Deadline 3A to provide clarification regarding the site accesses.
1.54-1.60	HGV calculation	For the purposes of these DCO application documents, the Applicant defines Heavy Goods Vehicles (HGVs) as vehicles greater than 7.5 tonnes. The HGV numbers for the construction period have been provided by an appropriately experienced contractor, and is based on all activities required to deliver the project. Within the HGV numbers the following has been considered which includes aggregate / concrete for haul roads: • Materials, Plant and Components Delivery • Bulk Materials Delivery / Removal • Concrete Delivery • Personnel Transportation • Fuel delivery • Water Delivery (Potable) • Waste Collection • Sewage and Greywater Collection • Craneage • Low Loaders. The HGV routes are identified within the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301]** along with the management and monitoring measures. These are considered appropriate for this stage of the project and for the framework document, with the final Construction Traffic Management Plan to be produced by the contractor. Suffolk Highway Authority raised a question regarding the assumption of an even distribution of HGVs throughout a construction day. Based on professional experience, this approach is both commonly taken and a reasonable assumption. Furthermore, the use of an even distribution to identify a peak hourly flow of HGVs is considered robust as it excludes network peak hours.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		However, Suffolk identified Sizewell C Power Station as a recent example of a consented DCO where the hourly distribution of HGVs was not evenly distributed throughout the day. The data identified for Sizewell C Power Station is based on Hinkley C Power Station. Further analysis into the daily distribution of HGVs has been undertaken using Sizewell C Power Station distributed as the example referenced, to consider the potential effect of applying a different distribution. When comparing the two-way HGV traffic flows, the Sizewell C Power Station distribution identifies a peak two-way movement of 33 HGVs whereas the Sunnica distribution identifies a peak two-way movement of 31 HGVs. Therefore, it is concluded the difference in hourly distribution identified is a negligible difference and the conclusions of the assessment would remain unchanged. This analysis is set out in full in the Transportation Technical Note [**REP2-041**]. The construction profile assumes the grid connection corridors are constructed at the beginning of the construction programme. This is when the peak number of HGVs are forecast to occur for Sunnica West Site A and B and Sunnica East Site A and B. However, the exact start of the construction of the grid connection in relation to other construction activity has not yet been determined. Nevertheless, the ES [**APP-045**] and TA [**APP-117**] assumes the worst-case scenario. Therefore, the forecast HGV programme is considered to be robust.
1.61-1.62	LGV movements	The LGVs assessed in the Transport Assessment [**APP-117**] refer to the construction staff vehicles. The construction staff will travel to the two centralised car parks between 06:00-07:00 and 19:00-20:00 and then be distributed to the different areas of the site via mini-bus. There will be no other LGVs associated with the scheme on the local highway network outside of the arrival / departure period. All delivery vehicles have been assumed to be HGVs for the purpose of a worst-case assessment.
1.63-1.72	Workforce calculation	The Applicant notes the comments made by the Local Highways Authorities on workforce calculation and trip generation. The points raised have been responded to at length in the Transportation Technical Note [**REP2-041**], which demonstrates that the assessment is robust. Notwithstanding this, the Applicant will update the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] at Deadline 3, to include a commitment to monitor total vehicle levels at the two main staff accesses, and introduce a cap in vehicle numbers calculated at the level of a 1.3 vehicle occupancy to ensure the maximum assessed level of vehicle trips is not exceeded. Capping based on vehicle numbers, rather than car occupancy, addresses the crux of the parameter for which control is sought, whilst enabling the applicant to achieve this through

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		other measures, such as the mini-bus which is set out in the Framework Construction Traffic Management Plan and Travel Plan. The Travel Plan is appropriate at this stage of the project and cannot commit to specific details without knowing workforce origins. Paragraph 7.2.31 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] states that once staff origin locations are known investigation will be made into providing a mini-bus service to local residential areas to pick up/drop off staff who live locally. In addition, this will investigate the potential to provide the mini-bus service to local railway stations. The additional commitment to monitor and cap staff vehicle numbers provides the security sought by the Local Highways Authorities to ensure that the Applicant will deliver on the commitments made in the Framework Travel Plan [**AS-301**].
1.73	Traffic modelling	The traffic flows at the development peak hours (06:00-07:00 and 19:00-20:00) have been compared against the network peak hours (08:00-09:00 and 17:00-18:00) in Table 6-7 and Table 6-8 in the Transport Assessment [APP-117]. These tables show that the development peak hour flows with the construction staff traffic is lower than the traffic levels during the network peak hours where they are known to operate within capacity at present. This is clear and reasoned justification for the conclusions drawn. It should be noted that traffic modelling has been undertaken post-application, to address specific concerns raised by the LHAs. This includes the Elms Road/A11 Off-slip, which is detailed in the Transportation Technical Note [REP2-041], and the B1506 Bury Road / Herringswell Road / Gazeley Road junction, discussed in response to 13.46 in this LIR Response. In both cases, it has been demonstrated that the junction will operate with significant spare capacity.
	Appendix 13 – Framework Construction Traffic Management Plan and Travel Plan	
1.74-1.75	Updated – Framework Construction Traffic Management Plan and Travel Plan	The Applicant proposes to provide an updated iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] at Deadline 3. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development.
1.76-1.77	Delivery Management System	The Applicant proposes to provide an updated iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] in Deadline 3. Paragraph 7.2.6 of the Framework Construction and Traffic Management Plan and Travel Plan [**AS-300, AS-301**] states

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		that HGV deliveries will be managed to avoid the need for vehicles to arrive or depart from the site during the highway peak hours. The routeing of HGVs is restricted to those routes shown in Figure 18 to 23 of the Framework Construction and Traffic Management Plan and Travel Plan. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development. Section 8 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] provides a summary of the mechanisms that will ensure compliance with the final CTMP and Travel Plan. If despite the careful efforts of the Applicant and its contractor, there are breaches of the movement arrangements as set out in this CTMP during the construction phase, the enforcement procedures are as follows: a. The Transport coordinator will notify the Applicant of a breach of the CTMP or Travel Plan arrangements as and when they occur. b. The Applicant will issue a warning letter to the relevant contractor outlining what action would be taken in the event of a further breach. Details relating to the action which would be taken will be provided within the full CTMP and Travel Plan. c. The Applicant will report the details of the response to the Transport coordinator as part of the monitoring report. The monitoring report will be made available to the relevant local planning authorities and relevant highway authorities at their request to ensure compliance and that action is being taken where breaches are occurring. Through the LIR, the LHAs have stated that they consider that monitoring should be provided to them on a monthly basis. The Framework Construction Traffic Management Plan and Travel Plan as currently drafted allows this to happen, as the LHAs will be able to request the monitoring report at this frequency if they wish. Notwithstanding this, the Applicant agrees to draft a frequency into the updated version of the Framework Construction Traffic Management Plan and Travel Plan, which it has committed to providing at Deadline 3.
1.78	HGV Delivery Routes	The Applicant proposes to provide an updated iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] in Deadline 3. This will provide a full suite of access drawings to supersede Annex C.

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		HGVs will use Isleham Road to travel to / from Sunnica East Site Access E and F. The routeing of HGVs is restricted to those routes shown in Figure 18 to 23 of the Framework Construction and Traffic Management Plan and Travel Plan. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development.
1.79-1.80	HGV Timing Restrictions	The Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] includes timing restrictions on HGV deliveries. HGV deliveries will not be permitted on the local road network in the network peak hours of 0800-0900 and 1700-1800, or outside of working hours of 0700-1900. It is noted that this latter point could be made more explicit. A timing restriction preventing HGVs arriving and / or departing from the site outside of the agreed shift hours will therefore be addressed in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] that the Applicant proposes to submit in Deadline 3.
1.81	HGV Emissions Standards	Paragraph 7.2.11 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] states that all HGVs routeing to the development sites (with the exception of vehicles used for the transportation of AILs including cranes) will be required to be compliant with the latest emission standards at the time of construction. The Applicant will update this to explicitly state EURO VI in the next iteration of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] that the Applicant proposes to submit in Deadline 3.
1.82	Communications Strategy	Any changes to the management measures and controls that will impact the LHAs will be communicated to the relevant LHAs. The Framework Construction Environmental Management Plan [**REP2-026**] has been updated at deadline 2 to provide additional confidence to the LHAs in terms of engagement with themselves and the public. This is addressed at 2.11.1 and 2.11.2, which state: *"A Communication Strategy will be developed by the appointed contractor to ensure effective and open communication is undertaken with relevant stakeholders including the local planning authorities, local stakeholders and the public.* *The Communication Strategy will determine the most effective means of communicating with stakeholders. This may include, but is not limited to, information boards on the hoardings*

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		surrounding the Sites, updating local stakeholders and community via letter, leaflets and emails, as well as holding community consultation events at key points during construction." Requirement 14 in Schedule 2 to the draft DCO requires that no phase of the authorised development can commence until a CEMP has been approved by the relevant authority (or authorities), and the CEMP must be substantially in accordance with the Framework version.
1.83-1.84	Workers (Staff) Movements and Controls	The Applicant defines a Light Goods Vehicle (LGV) as a vehicle that are less than 7.5 tonnes. The only LGVs that are anticipated to travel to / from the site will be the construction staff vehicles.
1.85	Car occupancy	The Applicant will update the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] at Deadline 3, to include a commitment to monitor total vehicle levels at the two main staff accesses, and introduce a cap in vehicle numbers calculated at the level of a 1.3 vehicle occupancy to ensure the maximum assessed level of vehicle trips is not exceeded. Capping based on vehicle numbers, rather than car occupancy, addresses the crux of the parameter for which control is sought, whilst enabling the applicant to achieve this through other measures, such as the mini-bus which is set out in the Framework Construction Traffic Management Plan and Travel Plan.
1.86-1.87	Staff Arrival and Departure Times	The construction workers will be required to arrive at the site between 06:00 and 07:00 and depart the site between 19:00 and 20:00. Working hours are provided for in the Framework Construction Environmental Management Plan [**APP-123**] and the updated version [**AS-302**]. Requirement 14 in Schedule 2 to the draft DCO requires that no phase of the authorised development can commence until a CEMP has been approved by the relevant authority (or authorities), and the CEMP must be substantially in accordance with the Framework version. There may be a small number of worker trips to the site outside of these hours, for example, visits by management personnel to observe progress. However, any such visits will be small scale, occasional and infrequent, and all staff employed on the site will be subject to the working hours set out in the approved CEMP. As set out in section 8.2 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] if despite the careful efforts of the Applicant and its contractor, there are breaches of the movement arrangements as set out in this CTMP during the construction phase, the enforcement procedures are as follows:

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		a. The Transport coordinator will notify the Applicant of a breach of the CTMP or Travel Plan arrangements as and when they occur. b. The Applicant will issue a warning letter to the relevant contractor outlining what action would be taken in the event of a further breach. Details relating to the action which would be taken will be provided within the full CTMP and Travel Plan. c. The Applicant will report the details of the response to the Transport coordinator as part of the monitoring report. The monitoring report will be made available to the relevant local planning authorities and relevant highway authorities at their request to ensure compliance and that action is being taken where breaches are occurring.
1.88	Staff routing	The Transport Assessment [**APP-117**] and Traffic and Transport Chapter of the Environmental Statement [**APP-045**] assess a worst-case scenario of staff traffic impact, whereby staff routes are not controlled by the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**]. This is because it is not possible to monitor and enforce the routes taken by private individuals on the public highway network. The measure referred to in paragraph 7.2.25 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] is an engagement measure to seek to influence the routes that construction staff take, but is not relied upon to make the development acceptable or in relation to the results of the assessment.
1.89-1.91	Car parking	Staff will be expected to arrive over the preceding hour to allow time to be transferred to their working area. As stated in paragraph 7.2.29 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**], car parking permit system is proposed to be implemented across the two car parking areas. The intention of the car parking permit system is to identify the most appropriate of the two car parks to direct staff to use the SRN in the vicinity of the Site such as the A11 and A14 and also the A142. This will assist in minimising the number of vehicle trips which could occur on the local roads, in particular through Fordham, Chippenham, Worlington and Red Lodge. Full details of the car parking permit system will be provided in the detailed CTMP and Travel Plan submitted for approval under requirement 16 after the grant of consent, should development consent be granted. The internal haul road leading to Sunnica East construction staff car park allows for circa 400m of internal queuing of construction staff vehicles (circa 70 vehicles). This excludes the internal

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		queuing within the car park itself. The internal haul road leading to Sunnica West construction staff car park allows for circa 200m of internal queuing of construction staff vehicles (circa 35 vehicles). This excludes the internal queuing within the car park itself. Thus there will be substantial space within the site to allow for any queuing into the car park areas to be managed.
1.92	Mini-bus	As set out in the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**], the potential mini-bus service will be investigated and included in the final CTMP/ Travel Plan. Requirement 16 contained in Schedule 2 to the draft DCO requires the relevant county authority's approval of the CTMP before the commencement of the development. Therefore, if the LHAs consider that the minibus service has not been properly investigated, there is a mechanism through which this can be addressed. It is unduly onerous and not appropriate to require the Framework Construction Traffic Management Plan and Travel Plan to set out how exactly the minibus service would work at this stage. Furthermore, the Applicant will update the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**] at Deadline 3, to include a commitment to monitor total vehicle levels at the two main staff accesses, and introduce a cap in vehicle numbers calculated at the level of a 1.3 vehicle occupancy to ensure the maximum assessed level of vehicle trips is not exceeded. Capping based on vehicle numbers, rather than car occupancy, addresses the crux of the parameter for which control is sought, whilst enabling the applicant to achieve this through other measures, such as the mini-bus which is set out in the Framework Construction Traffic Management Plan and Travel Plan **[AS-300, AS-301**]. This provides further surety to the LHAs that sustainable travel patterns will be achieved given the nature, scale and location of the development.
1.93-1.95	Travel Coordinator	The role of the Transport / Travel Plan coordinator is set out in Section 7.3 of the Framework Construction Traffic Management Plan and Travel Plan [**AS-300, AS-301**]. Comments made on monitoring and reporting in this section of the LIR are duplications of those made in multiple other locations, including 13.119-13.129. The next iteration of the Framework Construction Traffic Management Plan and Travel Plan that the Applicant proposes to submit at Deadline 3 will address these points as relevant and described elsewhere in this response.
1.96-1.97	Reporting	This is a duplication of comments made elsewhere in the LIR. Please refer to the response section for 13.120-126. This sets out that the Framework Construction Traffic Management Plan and

LIR Summary Reference (Para)	Summary of LIR Comment	Applicant's Response to LIR
		Travel Plan [**AS-300, AS-301**] and that will be updated to provide additional information at Deadline 3, that reporting will be made available to the relevant local planning authorities and relevant highway authorities at their request to ensure compliance and that action is being taken where breaches are occurring. In response, to the LHAs comments, the Applicant is willing to commit to providing the monitoring report on a regular basis, rather than on request.
n/a	n/a	Pages 309 to Page 331 has been duplicated on Page 332 to 354. The responses to these comments are above.

17 Applicant’s Response to Annex E (Placeholder)

17.1.1 This response will follow at Deadline 3A on 28 November 2022.

18 Applicant’s Response to Annex F (Placeholder)

18.1.1 This response will follow at Deadline 3A on 28 November 2022.

Appendix A Technical Note – Transportation and Access

SUNNICA ENERGY FARM

Technical Note

Transport and Access

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Version number: 01

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Sunnica Energy Farm

Technical Note
Transportation and Access

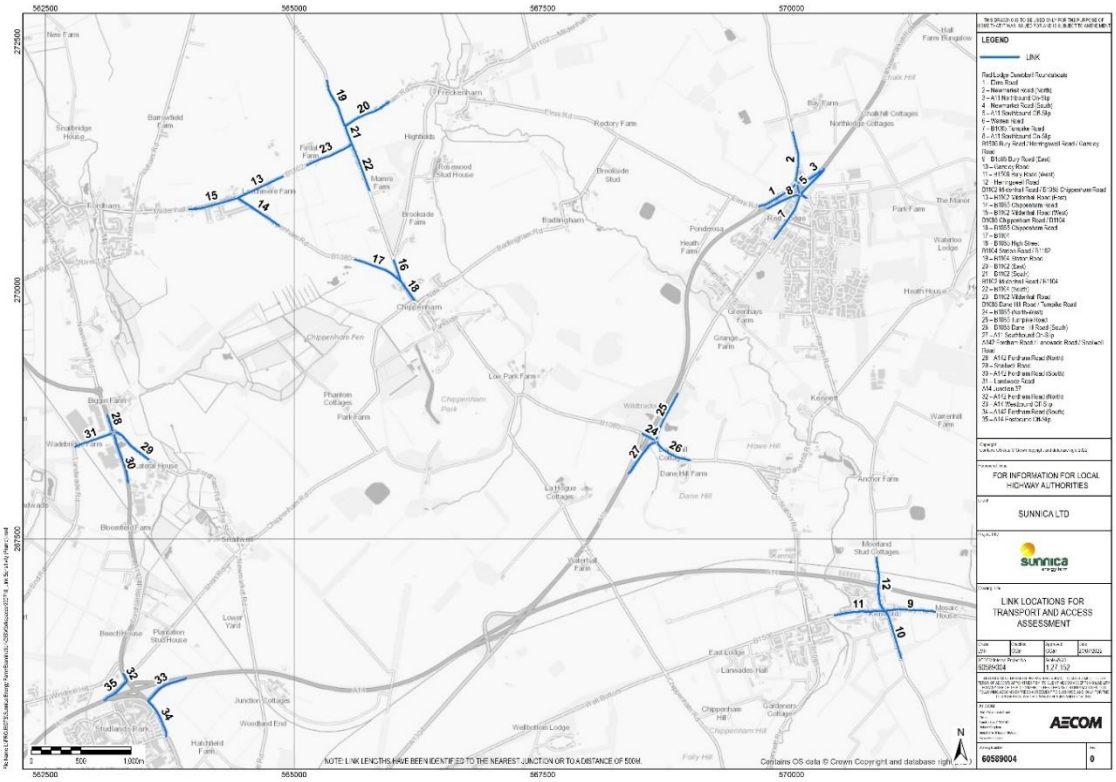
Version	Date	Status of Version
Rev 00	21/11/2022	Deadline 3

1 Introduction

1.1.1 This Technical Note has been prepared following consultation with Suffolk County Council (SCC) and Cambridge County Council (CCC) highway authorities (referred to as the Local Highway Authorities (LHAs)) between April and September 2022 via video conferencing meetings and email correspondence. In total four video conference meetings were held with the Local Highway Authorities on 26th April 13th July 25th July and 4th October.

1.1.2 During these meetings, the LHAs raised concerns on the link sensitivity classifications used in the Transport and Access chapter of the ES [APP-045]. Figure 1-1 illustrates the links used within the Transport and Access assessment.

Figure 1-1: Link Sensitivity Locations



1.1.3 On 17th October 2022, SCC provided a list to the Applicant of links where they did not agree with the sensitivity classification given by the Applicant.

1.1.4 The purpose of this Technical Note is to discuss the highway and Non-Motorised User (NMU) link sensitivity classifications used in the Transport and Access chapter of the ES and the suggested sensitivity classifications provided by SCC.

2 Information Provided by SCC

2.1.1 The information provided by SCC is presented in Table 2.1. The cells highlighted in orange show where SCC have suggested a change in the sensitivity classification. No comments have been received from CCC on this matter.

Table 2.1: Link Sensitivity Classification queried by SCC provided

County	Location	Applicant		SCC		SCC Commentary
		Highway Sensitivity	NMU Sensitivity	Highway Sensitivity	NMU Sensitivity	
Red Lodge Dumbbell Roundabout North						
Suffolk	Elms Road	Very Low Sensitivity	Very Low Sensitivity	Low Sensitivity	Low Sensitivity	There would be a negative impact on recorded cyclists and other NMUs on this corridor. It is considered that the assessment does not take into consideration existing users and absence of facilities for these users.
	Newmarket Road	Very Low Sensitivity	Very Low Sensitivity	Very Low Sensitivity	Low / Medium Sensitivity	Whilst due to residual capacity SCC do not believe that there would be a material impact on Driver Delay. There would be a negative impact on recorded NMUs on this corridor. It is considered that the assessment does not take into consideration existing users and absence of facilities for these users.
	A11 NB On-Slip Red Lodge	Very Low Sensitivity	Very Low Sensitivity	High Sensitivity	Very Low Sensitivity	SCC disagree with the allocation of slip roads as very low sensitivity given the importance of access to the SRN.
	Newmarket Road (South)	Very Low Sensitivity	Very Low Sensitivity	Medium Sensitivity	Medium Sensitivity	Whilst due to residual capacity SCC do not believe that there would be a material impact on Driver Delay. There would be a negative impact on recorded NMUs on this corridor. It is considered that the assessment does not take into consideration existing users and absence of facilities for these users.

County	Location	Applicant		SCC		SCC Commentary
		Highway Sensitivity	NMU Sensitivity	Highway Sensitivity	NMU Sensitivity	
Red Lodge Dumbbell Roundabout South						
	Newmarket Road (North)	Very Low Sensitivity	Very Low Sensitivity	Medium Sensitivity	Low / Medium Sensitivity	Whilst due to residual capacity SCC do not believe that there would be a material impact on Driver Delay. There would be a negative impact on recorded NMUs on this corridor It is considered that the assessment does not take into consideration existing users and absence of facilities for these users.
	A11 SB Off-Slip Red Lodge	Low Sensitivity	Very Low Sensitivity	High Sensitivity	Very Low Sensitivity	SCC are concerned about the resulting spike in movements and potential resulting operation of the approach.
Suffolk	Warren Road	Very Low Sensitivity	Medium Sensitivity	Low Sensitivity	Medium/High Sensitivity	The link is the main through route through Red Lodge and includes a school, a playground and provides access to a local centre. It is likely to see high levels of NMUs. The assessment of the change at Warren Road is also based on the flow at the approach to the roundabout, and not on different locations along the link, which may affect conclusions.
	B1085 Turnpike Road	Low Sensitivity	Medium Sensitivity	Low Sensitivity	High Sensitivity	The link is one of the main through routes through Red Lodge and includes a doctor surgery, a public house and provides access to green space. The assessment of the change at Turnpike Road is also based on the flow at the approach to the roundabout, and not on different locations along the link, which may affect conclusions.
	A11 SB On-Slip	Very Low Sensitivity	Very Low Sensitivity	High Sensitivity	Very Low Sensitivity	SCC disagree with the allocation of slip roads as very low sensitivity given the importance of access to the SRN.

County	Location	Applicant		SCC		SCC Commentary
		Highway Sensitivity	NMU Sensitivity	Highway Sensitivity	NMU Sensitivity	
B1056 Bury Road / Herringswell Road / Gazeley Road						
Suffolk	B1506 Bury Road (East)	Low Sensitivity	Medium Sensitivity	Medium Sensitivity	Medium Sensitivity	It is considered unlikely that there would be a residual impact on Driver Delay; however, no assessment has been undertaken of the increase in right turning traffic at this location. Bury Road East provides access to a small number of properties and there would be an impact on recorded NMUs on this corridor.
	Gazeley Road (South)	Very Low Sensitivity	Very Low Sensitivity	Very Low Sensitivity	Medium Sensitivity	The impact at Gazeley Road should be reviewed by the Applicant at Table 13-29. it is considered unlikely that there would be a residual impact on Driver Delay.
	B1506 Bury Road (West)	Low Sensitivity	Medium Sensitivity	Medium Sensitivity	High Sensitivity	Given the magnitude of change this is not considered to be likely to affect any conclusions.
	Herringswell Road (North)	Very Low Sensitivity	Low Sensitivity	Very Low Sensitivity	Medium Sensitivity	The impact at Herringswell Road should be reviewed by the Applicant at Table 13-29. Although the impact is very close to the threshold of being a Moderate Adverse impact. Herringswell Road provides access to a number of properties and forms part of the east / west pedestrian route and there would be an impact on recorded NMUs on this corridor.
A14 J37						
Suffolk	A142 Fordham Road (North)	Medium Sensitivity	Very Low Sensitivity	Medium Sensitivity	Low Sensitivity	Given the magnitude of change this is not considered to be likely to affect any conclusions.
	A14 WB Off-Slip (East)	Low Sensitivity	Very Low Sensitivity	High Sensitivity	Very Low Sensitivity	SCC disagree with the allocation of slip roads as very low sensitivity given the importance of access to the SRN.
	Fordham Road (South)	Medium Sensitivity	Very Low Sensitivity	High Sensitivity	Medium Sensitivity	Given the magnitude of change this is not considered to be likely to affect any conclusions.
	A14 EB Off-Slip (West)	Low Sensitivity	Very Low Sensitivity	High Sensitivity	Very Low Sensitivity	SCC disagree with the allocation of slip roads as very low sensitivity given the importance of access to the SRN.

3 ES Assessment

Criteria

3.1.1 The criteria used in the Transport and Access chapter of the ES to determine highway and non-motorised user (NMU) sensitivity for links within the study area are the following:

- Highway Sensitivity:
  - **Very Low** – local roads intended for local traffic;
  - **Low Sensitivity** – main distributor and secondary distributor roads;
  - **Medium Sensitivity** – primary roads; and
  - **High Sensitivity** – trunk roads.

- NMU Sensitivity:
  - **Very Low** – Rural road with no pedestrian / cycle facilities provided;
  - **Low Sensitivity** – Strategic vehicular route in a rural setting with pedestrian / cycle facilities;
  - **Medium Sensitivity** – Main vehicular route with pedestrian / cycle facilities provided in built up area; and
  - **High Sensitivity** – Lightly trafficked route provided in a town/village centre setting.

3.1.2 It is noted that the LHAs have sought to use the criteria above in their rationale for link sensitivity, and the criteria themselves are not in dispute.

3.1.3 In terms of highway sensitivity, the A11 and A14 off-slips have been categorised as low sensitivity as these off-slips connect to local roads. Although the on-slips connect to the SRN they have been classified as very low sensitivity as they are free flowing and the merges onto the A11 and A14 operate well within theoretical capacity.

3.1.4 The methodology outlined in section 4 of the Transport and Access chapter of the ES to assess severance, fear and intimidation and driver delay has been used to determine how the change in link sensitivity classification would change the significance of effect.

3.1.5 The significance of effect for severance, fear and intimidation and driver delay for the construction of the entire Scheme in 2023 for the Applicant's link sensitivity classification and SCC's link sensitivity classification is presented in Table 3.1. The purpose of this is to identify what the change to classification of effect would be if the link sensitivity suggested by SCC were to be used in the assessment, rather than the link sensitivity presented in the Traffic and Transport Chapter of the ES [APP-045]. The table shows classification of effect. Any Moderate or Major effect is considered "Significant" in EIA terms, and has therefore been highlighted.

Table 3.1: Significance of Effect for Severance, Fear and Intimidation and Driver Delay – 2023 Construction of Entire Scheme

County	Location	Severance				Fear and Intimidation		Driver Delay			
		Applicant		SCC		Applicant	SCC	Applicant		SCC	
		AM	PM	AM	PM	AAWT	AAWT	AM	PM	AM	PM
Red Lodge Dumbbell Roundabout North											
Suffolk	Elms Road	Minor Adverse	Minor Adverse	Moderate Adverse	Moderate Adverse	Negligible	Minor Adverse	Minor Adverse	Minor Adverse	Moderate Adverse	Moderate Adverse
	Newmarket Road										
	A11 NB On-Slip Red Lodge		Negligible		Negligible	Negligible	Negligible		Negligible		Major Adverse
	Newmarket Road (South)	Negligible	Minor Adverse	Minor Adverse	Major Adverse	Negligible	Minor Adverse	Negligible	Minor Adverse	Moderate Adverse	Major Adverse
Red Lodge Dumbbell Roundabout South											
Suffolk	Newmarket Road (North)	Negligible	Minor Adverse	Negligible	Moderate Adverse	Negligible	Negligible	Minor Adverse	Minor Adverse	Major Adverse	Major Adverse
	A11 SB Off-Slip Red Lodge	Minor Adverse	Negligible	Minor Adverse	Negligible	Negligible	Negligible	Moderate Adverse		Major Adverse	
	Warren Road	Minor Adverse	Negligible	Minor Adverse	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
	B1085 Turnpike Road	Minor Adverse		Moderate Adverse		Negligible	Minor Adverse	Moderate Adverse		Moderate Adverse	
	A11 SB On-Slip		Minor Adverse		Minor Adverse	Negligible	Negligible		Minor Adverse		Major Adverse

County	Location	Severance				Fear and Intimidation		Driver Delay			
		Applicant		SCC		Applicant	SCC	Applicant		SCC	
		AM	PM	AM	PM	AAWT	AAWT	AM	PM	AM	PM
B1056 Bury Road / Herringswell Road / Gazeley Road											
Suffolk	B1506 Bury Road (East)	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Negligible	Negligible	Minor Adverse	Minor Adverse	Moderate Adverse	Moderate Adverse
	Gazeley Road (South)	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
	B1506 Bury Road (West)	Negligible	Negligible	Minor Adverse	Minor Adverse	Negligible	Minor Adverse	Negligible	Negligible	Minor Adverse	Minor Adverse
	Herringswell Road (North)	Negligible	Negligible	Minor Adverse	Minor Adverse	Negligible	Negligible	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse
A14 J37											
Suffolk	A142 Fordham Road (North)	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Minor Adverse	Negligible	Minor Adverse	Negligible
	A14 WB Off-Slip (East)		Negligible		Negligible	Negligible	Negligible		Minor Adverse		Major Adverse
	Fordham Road (South)										
	A14 EB Off-Slip (West)										

4 Applicant Response

4.1.1 This section of the report focuses on the areas where using SCC's classification of link sensitivity would result in a moderate or major adverse effect. Links where there is no disagreement, or where there is disagreement, but the effect would not be significant were SCC's link sensitivity to be used, are not included. For example, SCC considers that Newmarket Road (South) should have Medium Sensitivity for NMU, whereas the Applicant considers that it should have very low sensitivity. However, using SCC's sensitivity does not result in a "significant" effect in EIA terms. Therefore a detailed response is not required as the outcome does not change the significance of the findings. It should be noted that this does not constitute agreement to a change in classification of link sensitivity.

Red Lodge Dumbbell Roundabout North

- **Elms Road**
  - Highway Sensitivity: SCC suggest that the highway sensitivity classification should be increased from very low sensitivity to low sensitivity. However, Elms Road is a local road, primarily for local traffic and is therefore of very low sensitivity. The rationale provided by SCC does not comment on the function of the road, however it is clear from its location and usage that it is a local road, and not a main or secondary distributor. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
  - NMU Sensitivity: SCC suggest that the NMU sensitivity should be increased from very low sensitivity to low sensitivity. This is on the basis of potential impact on existing users. It should be noted that Elms Road fits the classification for a very low sensitivity link, as a "rural road with no pedestrian/cycle facilities." AECOM recognises the concern that the assessment does not take into account existing users, and lack of facilities. NMU survey data was collected for Elms Road in July 2022. The 2022 survey data indicates that on an average weekday there are five two-way pedestrian movements, three two-way cycle movements and one two-way equestrian movement across the entire day. There was no NMU activity recorded during the times that construction staff will be travelling to/from the site (06:00-07:00 and 19:00-20:00). Therefore, it is considered that there is a very low level of existing NMU activity on Elms Road. This supports the classification of very low in terms of NMU sensitivity.
  - Furthermore, it should be noted that the Applicant proposes mitigation on Elms Road to provide localised widening to better manage the passage of HGVs. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
- **A11 NB On-Slip Red Lodge**
  - Highway Sensitivity: SCC have suggested that the A11 northbound on-slip at Red Lodge should have a high highway sensitivity due to the importance of access to the strategic road network. The rationale is noted, however, the reason for its classification as very low is because the link has significant levels of spare capacity and is free-flowing. National Highways have not made any comments about this connection to the A11 and have agreed with the assessment that has been undertaken in the Transport Assessment and the Transport and Access Chapter of the ES. In addition, the on-slip to the A11 is a free-flowing link which has been designed to Design Manual for Roads and Bridges (DMRB) standards. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
  - NMU Sensitivity: SCC agree with the very low NMU link sensitivity classification. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
- **Newmarket Road (South)**
  - Highway Sensitivity: SCC suggest that the highway sensitivity should be increased from very low sensitivity to medium sensitivity. This road is approximately 50m in length between the two Red Lodge Roundabouts. This road is not considered to be a primary road, as would be needed to meet the definition of medium sensitivity. Newmarket Road is considered to be a local road for local traffic and therefore, a very low highway sensitivity is considered appropriate for this link. It should be noted that SCC's response on the matter states "due to residual capacity SCC do not believe that there would be a material effect on driver delay" (quote shortened to specifically relate to driver delay, full quote in

Table 2.1 above). **Conclusion: It is agreed that there would not be a significant effect in terms of driver delay.**

- NMU Sensitivity: SCC suggest that the NMU sensitivity should be increased from very low sensitivity to medium sensitivity. This is a rural link with no pedestrian/cycle facilities, which would classify as being of very low sensitivity. There is no NMU survey data available for Newmarket Road, however, NMU survey data was collected for Elms Road. It is considered that the pedestrians and cyclists using Elms Road are likely to have an origin or destination of Red Lodge and therefore, will have passed through the Dumbbell Roundabouts, which is a robust estimate. The 2022 survey data indicates that on an average weekday there are five two-way pedestrian movements, three two-way cycle movements and one two-way equestrian movement across the day. There was no NMU activity recorded during the times that construction staff will be travelling to/from the site (06:00-07:00 and 19:00-20:00). As noted, there are very few trip origins or destinations to the north/west of the A11, and therefore there is only a very limited desire line for NMU use of this link, which is borne out by the data. Therefore, it is considered that there is a very low level of existing NMU activity on Newmarket Road and therefore, it is classified as very low in terms of NMU sensitivity. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

Red Lodge Dumbbell Roundabout South

- **Newmarket Road (North)**
  - Highway Sensitivity: SCC suggest that the highway sensitivity should be increased from very low sensitivity to medium sensitivity. This road is approximately 50m in length between the two Red Lodge Roundabouts. This road is not considered to be a primary road as would be needed to meet the definition of medium sensitivity. Newmarket Road is considered to be a local road for local traffic and therefore, a very low highway sensitivity is considered appropriate for this link. It should be noted that SCC's response on the matter states "due to residual capacity SCC do not believe that there would be a material effect on driver delay" (quote shortened to specifically relate to driver delay, full quote in Table 2.1 above). **Conclusion: It is agreed that there would not be a significant effect in terms of driver delay.**
  - NMU Sensitivity: SCC suggest that the NMU sensitivity should be increased from very low sensitivity to low/medium sensitivity. This is a rural link with no pedestrian/cycle facilities, which would classify as being of very low sensitivity. There is no NMU survey data available for Newmarket Road, however, NMU survey data was collected for Elms Road. It is considered that the pedestrians and cyclists using Elms Road are likely to have an origin or destination of Red Lodge and therefore, will have passed through the Dumbbell Roundabouts, which is a robust estimate. The 2022 survey data indicates that on an average weekday there are five two-way pedestrian movements, three two-way cycle movements and one two-way equestrian movement across the day. There was no NMU activity recorded during the times that construction staff will be travelling to/from the site (06:00-07:00 and 19:00-20:00). As noted, there are very few trip origins or destinations to the north/west of the A11, and therefore there is only a very limited desire line for NMU use of this link, which is borne out by the data. Therefore, it is considered that there is a very low level of existing NMU activity on Newmarket Road and therefore, it is classified as very low in terms of NMU sensitivity. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
- **A11 SB Off-Slip Red Lodge**
  - Highway Sensitivity: SCC have suggested that the A11 southbound off-slip at Red Lodge should have a high highway sensitivity instead of low. The highway sensitivity of the off-slip is considered to be influenced by the highway network that it connects to. As the A11 off-slip road joins to local roads which have less strategic importance than the A11 on-slip, which have been classified to have a very low or low highway sensitivity the off-slip is therefore considered to have a low highway sensitivity. In addition, National Highways have not made any comments about this link and have agreed with the assessment that has been undertaken in the Transport Assessment and the Transport and Access chapter of the ES. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

- NMU Sensitivity: SCC agree with the very low NMU link sensitivity classification. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

- **B1085 Turnpike Road**

  - Highway Sensitivity: SCC agree with the low highway link sensitivity classification for the B1085 Turnpike Road. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

  - NMU Sensitivity: SCC have suggested that the NMU sensitivity for the B1085 Turnpike Road should be classified as high sensitivity instead of medium sensitivity. If the B1085 Turnpike Road was classified to have a high NMU sensitivity, the significance of effect for severance would increase from minor adverse to a moderate adverse significance of effect in the AM peak hour. The significance of effect for fear and intimidation would increase from negligible to minor adverse and would therefore not result in a significant effect. Turnpike Road directly fits the criteria for a medium sensitivity link, as it is a main vehicular route with pedestrian/cycle facilities provided in built up areas. The existence of local facilities has been considered, but it would not be classed as a town/village centre setting, and therefore is not a high sensitivity route. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

- **A11 SB On-Slip**

  - Highway Sensitivity: SCC have suggested that the A11 southbound on-slip at Red Lodge should have a high highway sensitivity due to the importance of access to the strategic road network. The rationale is noted, however, the reason for its classification as very low is because the link has significant levels of spare capacity and is free-flowing. National Highways have not made any comments about this connection to the A11 and have agreed with the assessment that has been undertaken in the Transport Assessment and the Transport and Access chapter of the ES. In addition, the on-slip to the A11 is a free-flowing link which has been designed to Design Manual for Roads and Bridges (DMRB) standards.. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

  - NMU Sensitivity: SCC agree with the very low NMU link sensitivity classification. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

B1056 Bury Road / Herringswell Road / Gazeley Road

- **B1506 Bury Road (East)**

  - Highway Sensitivity: SCC have suggested that the B1506 Bury Road (East) should be classified as medium highway sensitivity instead of low sensitivity due to the increase in right turning vehicles at this junction. It should be noted that the level of impact from the development has no bearing on the classification of sensitivity. The B1506 Bury Road (East) is not a primary road, it is considered that this road will mainly be used for local traffic however it does provide a connection to the A14 and therefore, it could be considered to be a distributor road, and has therefore been assessed as “low” sensitivity for the purpose of a worst-case assessment. The LHA raises concerns regarding the increase in right turning vehicles. Junction modelling has been undertaken for this junction to assess the impact of the increase in right turning vehicles at this junction which is set out below. The junction modelling concludes that the junction will operate with significant spare capacity in 2023 with the Scheme construction staff vehicles. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

  - NMU Sensitivity: SCC agree with the medium NMU link sensitivity classification. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

- **Gazeley Road**

  - Highway Sensitivity: SCC agree with the very low highway link sensitivity classification for Gazeley Road. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

  - NMU Sensitivity: SCC have suggested that the NMU sensitivity for Gazeley Road should be classified as medium sensitivity instead of very low sensitivity. Gazeley Road is a rural road with limited pedestrian and cycle infrastructure available. This road is not considered

to be a desire line for NMUs and therefore, it is considered unlikely that there will be many NMUs present. Furthermore, changing the NMU link sensitivity to medium would not result in a significant effect in terms of severance and fear and intimidation as shown in Table 3.1. Overall, the conclusions for Gazeley Road would remain unchanged. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

- **B1506 Bury Road (West)**
  - Highway Sensitivity: SCC have suggested that the B1506 Bury Road (West) should be classified as medium highway sensitivity instead of low sensitivity due to the increase in right turning vehicles at this junction. The B1506 Bury Road (West) is not a primary road, it is considered that this road will mainly be used for local traffic however it does provide a connection to the A14 and therefore, it is considered to be a distributor road. The Applicant has classified the B1506 Bury Road (West) to have a low highway sensitivity, on this basis. Junction modelling has been undertaken for this junction to assess the impact of the increase in right turning vehicles at this junction which is set out below. The junction modelling concludes that the junction will operate with significant spare capacity in 2023 with the Scheme construction staff vehicles. Furthermore, traffic on Bury Road (W) would not give way to the right turn movement referred to by the LHAs. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
  - NMU Sensitivity: SCC have suggested that the B1506 Bury Road (West) should have a high NMU sensitivity. Changing the NMU link sensitivity to high would not result in a significant effect in terms of severance and fear and intimidation as shown in Table 3.1. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
- **Herringswell Road**
  - Highway Sensitivity: SCC agree with the very low highway link sensitivity classification for Herringswell Road. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
  - NMU Sensitivity: SCC have suggested that the NMU sensitivity for Herringswell Road should be classified as medium sensitivity instead of low sensitivity. Herringswell Road is not a main vehicular route through a built-up area. Herringswell Road does have pedestrian/cycle facilities for approximately 330m which provide access to the small collection of houses along Herringswell Road. To the north of the houses on Herringswell Road, no pedestrian/cycle facilities are provided. Therefore, a low NMU sensitivity is considered to be a robust classification. Furthermore, changing the NMU link sensitivity to medium would not result in a significant effect in terms of severance and fear and intimidation as shown in Table 3.1. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**

4.1.2 In order to assess the impact of the right turn movements from Bury Road (East) to Herringswell Road and Bury Road (West) to Gazeley Road Junctions 9 has been used to forecast the operation of the junction in 2023 with the scheme construction staff.

4.1.3 The Junction 9 results are presented in Table 4.1 and the modelling output report is provided in Appendix A. Ratio of Flow to Capacity (RFC) is a measure indicating the level of modelled traffic in comparison with the capacity of the movement. An RFC of 1.00 would indicate that the movement is at absolute capacity, i.e. no more traffic can pass through. An RFC of 0.85 indicates practical capacity, meaning that above this value queues will build up and the junction will likely experience short term peaks in delay and queuing Queues are expressed in Passenger Car Units (PCUs), which is a measure which standardises the metric to account for different sizes and types of vehicle, I.e. vehicles larger than a car have PCU values of greater than one.

Table 4.1: B1506 Burry Road / Herringswell Road / Gazeley Road Results (2023 Base + Construction Staff)

Arms	AM Peak (0600-0700)		PM Peak (1900-2000)	
	RFC	Queue (PCUs)	RFC	Queues (PCUs)
B-ACD	0.05	0.0	0.08	0.1
AB-CD	0.08	0.1	0.14	0.2
D-ABC	0.23	0.3	0.29	0.4
CD-AB	0.06	0.1	0.06	0.1

A is Bury Road (East), B is Gazeley Road, C is Bury Road (West), D is Herringswell Road

4.1.5 The results show that the development traffic will not result in unacceptable levels of driver delay as there will be substantial level of spare capacity available in this location.

A14 J37

- **A142 Fordham Road (North)**
  - Highway Sensitivity: SCC agree with the medium NMU link sensitivity classification. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
  - NMU Sensitivity: SCC have suggested that the NMU sensitivity for the A142 Fordham Road should be classified as low sensitivity instead of very low sensitivity. Table 3.1 indicates that if the NMU sensitivity was increased to low sensitivity the conclusions of the Transport and Access assessment would remain unchanged and would not trigger a significant effect in terms of severance or fear and intimidation. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
- **A14 WB Off-Slip (East)**
  - Highway Sensitivity: SCC have suggested that the A14 westbound off-slip should have a high highway sensitivity instead of low. The highway sensitivity of the off-slip is considered to be influenced by the highway network that it connects to. As the A14 off-slip road joins to local roads which have less strategic importance than the A14 on-slip, which have been classified to have a very low or low highway sensitivity the off-slip is therefore considered to have a low highway sensitivity. In addition, National Highways have not made any comments about this connection to the A14 and have agreed with the assessment that has been undertaken in the Transport Assessment and the Transport and Access Chapter of the ES. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**
  - NMU Sensitivity: SCC agree with the very low NMU link sensitivity classification. **Conclusion: No change in Sensitivity, effect remains not significant in EIA terms.**