Tillbridge Solar

Tillbridge Solar Project

EN010142

Applicant's Response to Examining Authority's Second Written Questions

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Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010

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1. Introduction

1.1.1 This report responds to the Examining Authority's (ExA) second written questions, issued on 04 February 2025 **[PD-011]**. This report responds to each of the questions posed to the Applicant, and where the Applicant considered it could provide assistance to the ExA, it has also responded to some questions addressed to other parties.

1.1.2 The following sections of this report are tabularised to include the ExA's questions and a response to each question as follows:

- General and cross topic questions (17);
- Biodiversity and ecology (2);
- Climate change (7);
- Compulsory acquisition, temporary possessions and other land or rights possession (2);
- Cumulative and in-combination effects (3);
- Draft Development Consent Order (DCO) (2);
- Heritage (6);
- Human health, safety, accidents and major incidents (4);
- Landscape and visual impacts (11);
- Noise and vibration (5);
- Socio-economic effects (7);
- Soils and agriculture (1);
- Transport and access (8);
- Water environment including flood risk (1); and
- Other planning matters (5).

2. General and cross-topic questions

Table 2-1: General and cross-topic questions

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.1.1	WLDC	**Central Lincolnshire Local Plan (2023) Policies** Could West Lindsey District Council (WLDC) please respond to the applicant's response to Q1.1.4 [REP3-062], which relates to the relevance of various development plan and other policies?	No response from Applicant required.
Q2.1.2	LCC	**LCC Policies** Could Lincolnshire County Council (LCC) please respond to the applicant's response to Q1.1.8 [REP3-062], which relates to the relevance of various development plan and other policies?	No response from Applicant required.
Q2.1.3	Applicant	**Planning Balance** What is the applicant's response to LCCs assertion that the 'regional' scale of the alleged harm is 'exceptional' within the terms of NPS EN-1 paragraph 4.1.7?	The Applicant set out its response to LCC's assertion that the 'regional' scale of the alleged harm is 'exceptional' on pages 4 to 14 in the **Applicant's Comments on Interested Parties Submission to First Written Questions at Deadline 3 [REP4-048]**. The concluding paragraph of the Applicant's response states: *"The types of impact on locally designated landscapes and views from the Scheme including cumulatively, are clearly not of a scale or in any way comparable with the residual effects contemplated within paragraph 4.2.17 of EN-1. The CNP presumption applies "in all but the most exceptional circumstances," and the Applicant's position is that the residual harm associated with the Scheme is far from the type of effects that may be in the realm of exceptional circumstances, let along "the most" exceptional circumstances.* *Finally, the Scheme has an August 2028 grid connection date. Unlike many solar DCOs in the process of seeking development consent, this is a scheme that has a real prospect of generating renewable energy by 2030, contributing to the Government's goals in this respect. If anything, by not applying the presumption in line with EN-1, this poses an unacceptable risk to the achievement of net zero."* Paragraph 4.1.7 of NPS EN-1 (Ref 1-1) states that where there would still be residual adverse effects after the implementation of mitigation, the Secretary of State should weigh those residual effects against the benefits of the proposed development. In relation to CNP infrastructure specifically, paragraph 4.1.7 states that the need case will outweigh residual effects "in all but the most exceptional cases", with examples of such exceptional circumstances provided including "an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero" or "an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk". The presumption in favour of development consent being granted for CNP infrastructure is also reflected in paragraph 4.2.15 of NPS EN-1, with further context for how this presumption works in practice provided in paragraphs 4.2.16-4.2.17 (please see pages 4 to 14 in the **Applicant's**

ExQ2	Questions to:	Question:	Applicant's Response:

Comments on Interested Parties Submission to First Written Questions at Deadline 3 [REP4-048] for further discussion on these policy requirements).

Section 7.4 on pages 139 to 145 of the Applicant's **Planning Statement [REP3-028]** applies the planning balance to the Scheme having regard to residual effects. This sets out the benefits of the Scheme, the weight that should be attributed to these and then this is weighed against impacts. This confirms that the principal residual effect following mitigation relates to localised landscape and visual impacts that are relatively limited and local in nature. This confirms that as a non-HRA development that the Scheme is in accordance with paragraph 4.2.15 of NPS EN-1 where the *"residual impacts are unlikely to outweigh the urgent need for this type of infrastructure"* and that "*in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of residual impacts."*

As the Applicant has set out in detail at pages 4 to 14 in the **Applicant's Comments on Interested Parties Submission to First Written Questions at Deadline 3 [REP4-048],** in this case, it is very clear that the extent and nature of the residual impacts do not trigger the exceptional circumstance test set out in EN-1 to refuse consent with the presumption firmly engaged in favour of granting development consent, to deliver CNP infrastructure. By contrast, the benefits of the Scheme are very substantial (in terms of climate change) and significant (in terms of ecology and nature conservation) at both a national, regional and local level, leading to an overwhelming balance in favour of granting development consent for the Scheme. In terms of S104(7) of the PA 2008 (Ref 1-2), the benefits of the Scheme clearly and decisively outweigh its limited and localised adverse impacts.

As noted above, paragraph 4.1.7 of NPS EN-1 sets out situations where the presumption would not apply where residual impacts. None of these circumstances apply to the Scheme further confirming that the presumption remains firmly engaged. This is further expanded in paragraphs 4.2.15 to 4.2.17 of NPS EN-1, in relation to non-HRA CNP infrastructure, such as the Scheme. This reaffirms the approach set out in paragraph 4.1.7 of NPS EN-1, which states that where residual non-HRA impacts remain after the mitigation hierarchy has been applied, that these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure confirming:

"Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts." (again, please see pages 4 to 14 in the **Applicant's Comments on Interested Parties Submission to First Written Questions at Deadline 3 [REP4-048]** where we have addressed these points in more detail).

Paragraph 4.2.17 of NPS EN-1 goes on to list tests that the Secretary of State will presume, as a starting point, CNP infrastructure has met. This includes *"where development in nationally designated landscapes requires exceptional circumstances to be demonstrated."* This is referencing landscapes and areas with the highest levels of protection requiring exceptional circumstances to be demonstrated. It is not a test that should be applied to local valued landscape or local landscape designations with this not constituting the most exceptional circumstance in policy terms.

Only nationally designated landscape has been given this level of protection reflecting their importance and the statutory duties in relation to them. It is useful to reference section 5.10 of EN-1

ExQ2	Questions to:	Question:	Applicant's Response:

in this respect, which, in the context of landscape and visual effects, refers at 5.10.7 to National Parks, the Broads, and AONBs as having *"the highest status of protection in relation to landscape and natural beauty."* Paragraphs 5.10.8-5.10.11 and 5.10.32-5.10.34 then expand upon the statutory duties and level of protection afforded to those landscapes. Paragraph 4.2.17 provides that even for these landscapes, which have national importance and the highest level of protection, and where exceptional circumstances are required to be demonstrated, the *"Secretary of State will take as a starting point that CNP Infrastructure will meet"* that test of amounting to exceptional circumstances. As such, even if the residual impacts of the Scheme were in relation to landscapes of national importance and with the highest level of protection (which is not the case here), the presumption would still be in favour of granting consent.

It is very clear from the above policy context, that the exceptional circumstance test is a high bar. In the case of landscape effects, it relates to national landscape afforded the highest level of policy protection and not to residual localised effects on local landscape designations or undesignated landscapes. Paragraph 5.10.12 of NPS EN-1 states:

"Where a local development document…has policies based on landscape…, these should be paid particular attention. However, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development."

It is clear from the above and from previous submissions, that the types of impact on locally valued landscapes and views of the Scheme, including cumulative effects, are clearly not of a scale or in any way comparable with the residual effects contemplated within paragraphs 4.1.7, 4.2.15 and 4.2.17 of NPS EN-1 that would amount to an exception to the presumption in favour of consent for CNP infrastructure.

In addition, consideration needs to be given to the Zone of Influence associated with the Scheme on its own and in combination with the other cumulative developments with respect to landscape effects. Tables 18-12 and 18-15 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** sets out the landscape effect of cumulative schemes at each development stage. Figure 18-1a of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** shows the location of the cumulative developments in relation to the Scheme. In terms of landscape effects, this initially considered schemes within 10km of the Principal Site and 2km of the Cable Route Corridor. Not all developments were considered further due to the intervening distance with limited landscape effects arising.

The cumulative schemes forming part of the cumulative assessment were the Cottam Solar Project, the West Burton Solar Project, Gate Burton Energy Park and the Glentworth Oil well Site. All of the cumulative developments and the Scheme fall within West Lindsey, situated within Lincolnshire. The fact that the cumulative developments and the Scheme are confined to the District clearly demonstrates that landscape effects are localised in nature, and not of regional scale. Regional effects would extend beyond the county (Lincolnshire) across the East Midlands region as a whole, which is not the case here. The East Midlands includes the counties of Northamptonshire, Rutland, Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire. This regional landscape character broadly reflects the Trent and Belvoir Vales National Landscape Character Area (NCA), which extends from Gainsborough to Nottingham and Grantham and displays similar characteristics to the Till Vale LLCA described in **Chapter 12: Landscape and**

ExQ2	Questions to:	Question:	Applicant's Response:
			Visual Amenity of the ES **[REP4-013]**, but where the cumulative schemes would occupy a relatively small area of this NCA. It is clear that the Scheme and the relevant cumulative developments result in localised and district level effects and not regional scale impacts.
Q2.1.4	Applicant	**Planning Balance** Please can the Applicant produce a calculation and illustration indicating the extent of land within a 5 mile radius of the site, its land use broken down into urban, rural and solar to enable the degree of local saturation of the landscape to solar development and using where possible Natural England landscape descriptors to help describe the scale of change before and after in area.	**Appendix A** of this document includes a figure showing the extent of land within a 5 mile radius of the Principal Site broken down into urban, rural and solar land use. It also includes the Natural England National Character Areas. Urban land has been defined using the adopted Central Lincolnshire Local Plan (Ref 1-27) with reference to Policy S1: The Spatial Strategy and Settlement Hierarchy. This confirms that the urban areas within Central Lincolnshire are Lincoln, Sleaford, Gainsborough, Caistor and Market Rasen. Only part of the urban area of Gainsborough falls within the 5 mile radius of the Principal Site. Data relating to solar has been derived using the Planning Inspectorate's National Infrastructure Planning webpage to confirm the location and extent of solar NSIPs and the use of the Department for Energy Security & Net Zero Renewable Energy Planning Database (October 2024 (Q3) (Ref 1-28) to confirm ground mounted solar projects within a 5 mile radius of the Principal Site. All solar NSIPs have been included within the 5 mile radius of the Principal Site. With respect to projects determined under The Town and Country Planning Act, projects were included in the Applicant's search where planning permission has been submitted (including EiA screening), granted or an appeal allowed. Projects that are under construction and operational were also included in the search. In addition, the Applicant reviewed the relevant local planning authorities planning portal and mapping services to confirm whether any further applications have been submitted since October 2024 to ensure that the latest position is captured. No TCPA solar projects been identified within the 5 mile radius of the Principal Site. Of the 20,341.38 hectares of land within a 5 mile radius of the Principal Site, 18,287.92 hectares is rural land, 270.58 hectares is urban land and 1,782.88 hectares would constitute ground mounted solar if all NSIPs are constructed. This demonstrates that 89.91% of the land within a 5 mile radius of the Principal Site would remain as rural land, with only 8.76% of land within a 5 mile radius of the Principal Site comprising ground mounted solar if all projects are delivered. 1.33% of the land would constitute urban land forming part of Gainsborough. The area within a 5 mile radius of the Principal Site would therefore retain its primarily rural character, with solar development only comprising 8.76% of land within this area. This illustrates that the scale of change is low with the area retaining most of its existing rural land use and countryside within a 5 mile radius of the Principal Site. Two National Character Areas fall within a 5 mile radius of the Principal Site. This includes NCA 45: Northern Lincolnshire Edge with Coversands and 48: Trent and Belvoir Vales. The total area of land within NCA 45 is 50,057.68 hectares and NCA 48 is 177,604.75 hectares resulting in a combined total area of 227,662.43 hectares. The total area of solar projects within a 5 mile radius of the Principal Site comprises 1,782.88 hectares with this constituting 0.78% of the combined NCA area. This helps to further demonstrate that the scale of change following the implementation of the Scheme and other solar NSIPs is minimal and will not result in a material impact/change within the wider NCA areas.
Q2.1.5	WLDC	**Planning Balance**	No response from Applicant required.

ExQ2	Questions to:	Question:	Applicant's Response:
		WLDCs response to Q1.1.10 [REP3-067] states in part (referring to paragraph 4.1.7 of NPS EN-1): *'It further states that, for projects that qualify as CNP infrastructure, it is likely that the need case will outweigh the residual effects in all but the 'most exceptional' cases. With regard to the cumulative impact of the Tillbridge Solar Project with the other three solar NSIP projects either consented or awaiting decision, WLDC considers these impacts to be 'exceptional'. The magnitude of landscape character change for a period of 60 years is significant and adverse in planning policy terms.'* • Is WLDC suggesting that the effects identified at table 0-1 of its LIR [REP1A-005] amount to 'exceptional' impacts within the terms of NPS EN-1 paragraph 4.1.7?	
Q2.1.6	Applicant	**Shared Management Plans** The ExA notes the applicant's response to Q1.1.14 [REP3-062]. Taking this into account, what weight can the ExA place on the reference to a joint Construction Traffic Management Plan (CTMP) and to what extent is the ES predicated on joint construction traffic measures which would be controlled by a joint CTMP?	Paragraph 1.3.4 of the **Framework CTMP [EN010142/APP/7.11(Rev05)]** sets out that a Joint CTMP could be prepared between the Scheme and the other solar DCOs post-consent once further details are known with respect to project timeframes to manage and further mitigate construction traffic impacts. Whilst the **draft DCO [EN010142/APP/3.1(Rev06)]** cannot control the other schemes, the Applicant has demonstrated that it is committed to working with the other developers on joint mitigation. This includes a Joint CTMP in relation to the shared Cable Route Corridor should this be practicable. This is secured, as far as possible, through requirement 14 of the **draft DCO [EN010142/APP/3.1(Rev06)]** which requires the submission and approval of a CTMP that is substantially in accordance with the **Framework CTMP [EN010142/APP/7.11(Rev05)]**. The **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-032]** updated at Deadline 3 also demonstrates the Applicant's commitment to cooperation, since it includes a signed cooperation agreement at **Appendix C [APP-216]**. Whilst a side agreement that falls outside of the DCO process, it demonstrates that there is an agreement in place for all parties to cooperate with each other and to act reasonably and in good faith to mitigate adverse impacts (clause 4.1.2). The Applicant has done as much as it can within the legislative framework available to support joint working if/as the projects progress to the construction phase. The CTMP would need to be approved by the Local Highway Authorities in accordance with requirement 14 of the **draft DCO [EN010142/APP/3.1(Rev06)]**. Should construction programmes of the projects overlap, the Local Highway Authority, as the relevant planning authority, would have the ability to encourage further collaboration and control in its assessment of the CTMP and ultimately the discharge of requirement 14. In view of the above, the provisions set out within the **Framework CTMP [EN010142/APP/7.11(Rev05)]** and additional control afforded by the cooperation agreement are relevant and material to decision making. These measures and controls do have some weight, but cannot be fully relied upon. This approach was accepted by the Examination Authority in its recommendation report into the Gate Burton Energy Park and accepted by the Secretary of State. Paragraph 3.12.68 of the ExA recommendation report stated that:

ExQ2	Questions to:	Question:	Applicant's Response:
			"In terms of a mechanism to control or require a joint CTMP I agree with the Applicant that this DCO cannot seek to control the actions of the developers of the other schemes. It is therefore not appropriate to require the Applicant to produce such a document. I am, however, conscious of the Applicant's commitment to collaborative working as addressed in [REP6-041] and which is further evidenced by the cooperation agreement signed between the various developers, a copy of which is included in the appendices of that document. Whilst these are only aspirational or matters that could be amended, or indeed the parties agree to remove the agreement they are at present in place and are material and relevant as are the actions of the developers to date including in terms of cooperating on the common GCC. I am further persuaded that changes to the fCTMP which include commitments to the matters to be included in the detailed CTMP and a commitment to explore the potential for a joint CTMP once further detail on the progress of the other schemes evolves post consent, gives further weight to this. Overall, whilst firm binding commitments cannot be made or included, the Applicant has gone as far as it can to include in the documentation the opportunity to facilitate the joint working and these would be considerations available to the Highway Authorities when they consider the Approval of the detailed CTMP under Requirement 14, and which I note WLDC has been identified as a consultee." Similarly, paragraph 3.6.36 of the ExA's recommendation report into the West Burton Solar Project dated 8 August 2024 stated that: *"The ExA is satisfied that, should more than one of the NSIP scale proposals progress concurrently, traffic movements during construction phases would be spread across the highway network. The proposed Joint CTMP would also give greater assurance that cumulative impacts would be managed."* The Secretary of State agreed with the ExA's conclusions on cumulative effects in relation to the West Burton Solar Project in its decision letter issued on 24 January 2025. The ES has not been predicated on joint construction traffic measures. The assessment set out in **Chapter 16: Transport and Access** of the ES **[APP-047]** is based on the worst-case scenario, which assumes that the installation of the Cable Route Corridor is carried out independently of other DCO solar projects. However, the Applicant will continue to liaise with the other DCO solar projects to combine works and minimise cumulative effects where possible.
Q2.1.7	Applicant	**Mitigation Hierarchy** Could the applicant please provide a table (with ES section and / or paragraph references) which sets out how the mitigation hierarchy – as described in NPS EN-1 – has been applied to the development? If there is an absence of the requisite information in the ES, then could the relevant chapters please be updated to address the mitigation hierarchy?	The Applicant has provided a table outlining how the mitigation hierarchy has been applied to the Scheme within **Appendix B** of this document.

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.1.8	Applicant	**Maintenance** Table 2-2 of the Framework Operational Environmental Management Plan (FOEMP) [REP4-023] refers to the indicative design life of various scheme components. If the proposed development is anticipated to have an operational lifetime of 60 years and the lower end of the panel design life (as expressed in table 2-2) is 25 years then would there be a requirement (based on a reasonable worst case scenario) for at least two panel replacements over the lifetime of the project? If so, does the ES account for this, bearing in mind that many of the applicant's responses assume that there will likely only be one panel replacement over the lifetime of the development? If the applicant is asserting that likely technological improvements mean that panel life will increase – reducing the frequency of panel replacement – then can the applicant support this position with evidence?	The Applicant considers the assumption applied throughout the ES that one replacement would be necessary during the lifetime of the Scheme is appropriate, without accounting for technological improvements in panels (although those anticipated improvements do strengthen the position). **Table 2-2** within the **Framework OEMP [REP4-022]** indicates that the current design life for panels range between 25-40 years, depending on the model of panel selected. All scenarios except for the lowest end of this range (i.e. the least durable panels currently on the market) would result in panels operating within their design life matching or exceeding the lifetime of the Scheme. The Applicant considers it reasonable to assume that the lowest end of this range will have improved by the point in time which any replacement of panels would be required, or that the operator would elect to install panel models of a greater durability to ensure only one replacement would be required in the remainder of the Scheme lifetime. For example, if panel models with a 25 year design life were replaced at exactly 25 years into the Scheme's operation, a single replacement with panel models of a 35 or greater year design life would last until the end of the Scheme's operational period. The Applicant also reiterates the comments made at ISH1 that "indicative design life" refers to the conservative assumptions applied by manufacturers as to the period of time within which technology will operate before declining in efficiency, or output beyond stated levels. Existing panel designs with a design life of 25 years will likely still be operational beyond 25 years. Even a short operational extension beyond their indicative design life would bring one replacement of panels within the lifetime of the Scheme. Finally, it is noted that Article 5(3) within the **draft DCO [EN010142/APP/3.1(Rev06)]** secures the assessment made in the Environmental Statement, prescribing "*This article does not authorise the carrying out of any works which are likely to give rise to any materially new or materially different effects that have not been assessed in the environmental statement*." Two full replacements of the entirety of the Scheme's panels would clearly generate materially different effects from that assessed in the environmental statement, particularly in respect of the greenhouse gas assessments which presume only one full replacement of the Scheme's panels. This will restrict the operator from being able to replace the entirety of the Scheme's panels more than once, preventing the concern raised by the Examining Authority from being able to occur.
Q2.1.9	Applicant	**Maintenance** What is the applicant's response to 7000 Acres' response to Q.1.1.24 [REP3-092], which effectively outlines that the assumed rate of panel and BESS replacement should be controlled by the Development Consent Order (DCO)? In formulating a response, please consider the tests to be applied for DCO requirements.	The Applicant has already secured appropriate controls in the DCO. The Applicant therefore does not consider any further drafting is required to the DCO requirements or otherwise to control the assumed rate of panel and BESS replacement, given the DCO and its associated certified documents already controls the replacement rate. Specifically: • The definition of "maintain" in the draft DCO makes clear that maintain does not include the ability to "remove, reconstruct or replace *the whole of*, the authorised development" (i.e. maintain allows the undertaker to "inspect, repair, adjust, alter, remove, refurbish, reconstruct, replace and improve *any part of*" the authorised development) (emphasis added in both instances). • As discussed in Q2.1.8, Article 5(3) then ensures that in "maintaining" the authorised development, any replacement of components cannot give rise to any materially new or materially different effects than that assessed in the ES. Wholesale replacement of panels, BESS or other components beyond the assumed levels in the ES would generate such

ExQ2	Questions to:	Question:	Applicant's Response:
			effects, and as such be prohibited by the Article. Replacements of individual Scheme components or parts of the Scheme where components break or malfunction would still be enabled, provided materially new or different effects are not generated, and any replacement/maintenance accords with the processes within the **Framework OEMP [REP4-022]**. • Schedule 2, Requirement 13 of the **draft DCO [EN010142/APP/3.1(Rev06)]** provides additional controls and transparency around how the power to "maintain" the authorised development pursuant to Article 5 is exercised in practice. This requirement secures that the final operational environmental management plan must be generally in accordance with the **Framework OEMP [REP4-022]**. This includes the existing drafting within section 2.3 of that Framework OEMP which controls replacement of panels at the assumed rates set out in Table 2-2. The benefit of including the replacement controls within the OEMP means that greater nuance in the mechanisms for replacement and the various inputs and considerations can be included in a cohesive manner. For example, a detailed process is outlined for yearly maintenance and replacement schedules to be prepared and produced for input. Section 120 of the Planning Act (Ref 1-2) provides that a DCO may impose requirements in connection with the development for which consent is granted. Such requirements may correspond with conditions which could have been imposed on the grant of planning permission under the Town and Country Planning Act 1990 (Ref 1-3). In this regard, the relevant paragraphs of the National Planning Policy Framework and associated Planning Practice Guidance concerning conditions generally apply. Requirements should therefore be precise, enforceable, necessary, relevant to the development, relevant to planning and reasonable in all other respects. The comprehensive and cohesive approach outlined in the **Framework OEMP [REP4-022]** would be difficult and inappropriate to introduce as a standalone requirement, as it would not be precise and enforceable in the same way that the existing requirements which require the production of the final management plans are.
Q2.1.10	Applicant	**Appendix A EXQ1** Could the applicant please update Appendix A of its response to EXQ1 [REP3-062] to include references to relevant paragraphs of the ExA recommendation report and SoS decision in relation to the recently consented West Burton scheme?	The Applicant has updated the table included in Appendix A to the **Applicant's Responses to Examining Authority's First Written Questions [REP3-062]** to include references to relevant paragraphs in the ExA recommendation report and the SoS decision in relation to the recently consented West Burton Solar Project. An amendment has also been made to column five of the first row in the table, relating to the ExA's Recommendation Report on Gate Burton Energy Park, as the previous text was based on the ExA;s recommendation report, whereas upon reviewing the Gate Burton Environmental Statement, it was found that an ALC survey was not undertaken, instead, a desk-based forecast was prepared. The updated table is attached to this report as **Appendix C**.
Q2.1.11	Applicant	**West Burton DCO** Could the applicant please provide any updates considered necessary to the dDCO and explanatory memorandum to take into account the recently made DCO for the West Burton scheme. The made DCO may generally be in line with those for Cottam and Gate Burton but there may be some issues where matters have moved on, or where requirements (for example)	The Applicant has reviewed the made West Burton Solar Order and made changes to the **draft DCO [EN010142/APP/3.1(Rev06)]** and **Explanatory Memorandum [EN010142/APP/3.2(Rev03)]**, where relevant. The Applicant can confirm that these changes do not change the conclusions of the ES. The Applicant notes that there are differences between the drafting of the Orders which relate to different drafting styles, but which do not go to the substance of the drafting. The Applicant has not

ExQ2	Questions to:	Question:	Applicant's Response:

have been refined. Please could the applicant also outline if the made DCO has any implications for the assessment undertaken and presented in the ES.

Similarly, could WLDC, LCC, NCC, BDC and 7000 Acres please provide any representations on the relevance or implications of the recently made DCO.

made changes to drafting unless the Applicant considered the different approach in West Burton provided better clarification or application of the article, or if it represents an improved approach substantively.

The Applicant also notes that the Secretary of State's decision on West Burton specifically made several modifications to the draft DCO at pages 79 - 83. Given these reflect a direction from the Secretary of State, we set out below whether the Applicant incorporated these (or why not, if not) below.

Change recommended by Secretary of State ***[NB: Article numbers adjusted to reflect Tillbridge numbering]***	**Action by Applicant**
Amendment to the preamble to the Order to include section 140 of the Planning Act 2008 as part of the Secretary of State's powers to authorise the development.	Already in dDCO.
Omission of the definition of "the 2009 Act" related to the Marine and Coastal Access Act 2009, to reflect the ExA's decision to not require a Deemed Marine Licence.	Deletion already made from dDCO.
Omission of the definition of "Stow Park Deer Park land" and "Stow Park Deer Park Plan" to align with an updated Land Plan and Works Plan.	Not relevant to Tillbridge Solar Land and Works Plans.
Amendment to the definition of "commence" to include the definition from the Planning Act 2008.	Incorporated.
Amendment to the definitions of "the Cottam Solar Project Order" and "the Gate Burton Energy Park Order" to reflect the statutory instruments, as made.	Different approach to definitions for Cottam and Gate Burton (refer to undertakers for projects instead).
Amendment of "authorised development" and "relevant planning authority" to clarify their purposes in respect of Schedule 1 and 2 respectively.	Definitions as sought already included in Tillbridge Solar dDCO.
Amendment to the definition of "date of decommissioning" and "date of final commissioning" to reflect the fact that there may be different dates for different parts of the authorised development and associated amendments throughout the Order	Amendments sought already included within Tillbridge Solar dDCO (although refer to "part" of development as opposed to "phase", to align with similar language use in ES and requirements).

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Amendment of definition of "without prejudice written scheme of investigation" to "written scheme of investigation".	Definition not relevant to Tillbridge Solar dDCO, as document is not included in certificated document schedule.
Insertion of Article 2(3) to clarify that any reference to "authorised development" includes construction, maintenance, operation, use and decommissioning	Article 2(3) already included in Tillbridge Solar dDCO.
Inserting Article 16(5)(c) to include the requirement for the undertaker to display identical site notifications of the proposed works at each end of the road affected, for the purposes of safety and for consistency with the Secretary of State's changes to the Cottam Solar Project Order.	Drafting already included at Article 16(4)(c) of Tillbridge Solar dDCO.
Omitting Article 17 (Removal of human remains) and associated footnotes, as it is the Secretary of State's preference to remove this Article if there are no known human remains within the proposed authorised development's boundaries.	Deletion of Article 17 (removal of human remains) already made from Tillbridge Solar dDCO.
Insertion of additional articles that Article 21 is subject to, including Article 26 (acquisition of subsoil only), Article 29 (rights under or over streets) and Article 50 (Crown rights).	Only Article 50 has been added to Article 21 (the equivalent to Article 19 in West Burton Order), on the understanding of Tillbridge Solar that Articles 26 (acquisition of subsoil only) and 29 (rights under or over streets) are not subject to Article 21 because they do not conflict with Article 21.
Amendment of Article 22(2) to update reference to the Acquisition of Land Act 1946 to the 1981 Act as this is the legislation that currently applies in practice. The same change has been made throughout the Order where applicable	Amendment made.
Insertion of Article 22(3) to reflect changes made by section 185 of the Levelling-up and Regeneration Act 2023 to the Compulsory Purchase Act 1965 and the Compulsory Purchase (Vesting Declarations) Act 1981.	Drafting already included in Article 22 within Tillbridge dDCO to reflect LURA 2023 reforms.
Rearrangement of previous Article 49 (Compulsory acquisition of land – incorporation of the mineral code) to become new Article 21.	Article 49 retained in current position to avoid disorder within Order, but able move if requested by ExA.
Amendment of Article 23(2) to include the phrase "the table in" for clarity.	Amendment made.

ExQ2	Questions to:	Question:	Applicant's Response:

Amendment of Article 24(1) and (2) to include the words "whichever is the earliest" to clarify the date when private rights and restrictions over land, subject to compulsory acquisition under the Order, are extinguished or cease to have effect.	Drafting already included in Article 24 within Tillbridge dDCO.
Removal of Article 36(3)(c) to reflect the Secretary of State's preference for consent to be provided for any transfers to group companies.	Equivalent sub-paragraph already removed from Article 36 of Tillbridge dDCO.
Amendment to Article 36(4) to require additional written notification to the relevant local planning authorities (in addition to the Secretary of State) before the transfer or granting of any benefit under the Order or related statutory right, where the consent of the Secretary of State is not required.	Amendment made. Further amendment also made to delete Article 36(5)(f) - given change to require notification to planning authorities, it is no longer appropriate to share the document effecting the transfer or grant as this may be commercially confidential. This approach aligns with West Burton Solar drafting.
Amendment to Article 36(6) provides that the effective date of transfer or granting of benefit to another person is to be ten, rather than five, working days from the receipt of the notification.	Drafting already included in Article 36(6) within Tillbridge dDCO.
Amendments to Schedule 1.	As Tillbridge Solar and West Burton Solar's Schedule 1s are significantly different (including for example, due to the DC/DC vs AC/DC BESS, and a different approach to the presentation of apparatus within the Works Plans, amendments have not been carried over to Schedule 1.
Schedule 2	
Insertion of paragraph 1(a)(vi) to denote Lincolnshire County Council as a "relevant planning authority" for the purposes of long-term flood risk mitigation (Requirement 22). Amendment to Requirement 22(1) to include that consultation must occur with the Lead Local Flood Authority before final submission and approval by the Environment Agency.	Amendment not made. Tillbridge Solar does not have an equivalent long term flood risk mitigation Requirement, as this was only included for West Burton due to the change application made by West Burton post-application to extend the lifetime of the Scheme from 40-60 years, and therefore the need for this Requirement to be included to reflect the lack of assessment in the ES of this additional period of climate-induced flood risk.
Removal of Requirement 3 (Approved details and amendments to them) from paragraph 1(b)(i) as there is a possibility that other planning authorities may need to be involved in the amendment of certain Approved Documents.	Amendment not made, otherwise there will be no clear specified planning authority for Requirement 3, which is necessary for the function of that Requirement.

ExQ2	Questions to:	Question:	Applicant's Response:

Addition of paragraph 1(c) because the discharge of Requirement 11 (Archaeology) should be done through Lincolnshire County Council and Nottinghamshire County Council.	Amendment not made, on basis that the Archaeology requirement is already listed at 1(b)(iii) in the Tillbridge Solar dDCO which prescribes Lincolnshire County Council and Nottinghamshire County Council as the relevant planning authorities for it.
Additions to paragraph 1, including "in the case of any requirement not specified above" to provide clarity on when the definition of "relevant planning authority" applies specifically to different affected Councils and when it applies generally, and the addition of Nottinghamshire County Council to the list of affected Councils.	Amendment not made, as Nottinghamshire County Council is already provided for in its drafting, and because all requirements within Schedule 2 are captured in paragraph 1 of the Tillbridge Solar dDCO.
Removal of Requirements 7(2)(a) and (b), 8(2)(a) and (b), 13(2)(a) and (b), 14(2)(a) and (b), 19(2)(a) and (b), and 21(5)(a) and (b), as well as amendments to 11(2) and 16(1), to remove any specific applications or references to the excluded solar array works, in line with the changes as described above at 9.1(b)(ii) noting that the new Land Plan and Works Plan integrates the Stow Park Alteration.	Amendment not made as Stow Park Alteration not relevant to Tillbridge Solar.
Amendment of Requirement 11 (Archaeology) to account for consultation feedback from Historic England.	Amendment not made as Requirement 11 (Archaeology) in Tillbridge Solar dDCO already reflects agreed position with Historic England.
Amendment to Requirement 13 (Operational Environmental Management Plan) to provide for approval of waste management strategy by relevant waste authority.	Amendment made.
Remaining schedules	
Amendments to Schedule 9 (land in which only new rights etc may be acquired)	Not made as rights are not relevant to Tillbridge Solar Project.
Amendments to Schedule 13 (Documents and plans to be certified	Amendments not made as relate to West Burton documents (although Applicant has separately updated Schedule 13 at Deadline 5 to ensure alignment with latest documents.
Amendment to Schedule 14 (Arbitration rules) at paragraph 7 to reflect the Secretary of State's preference that the default position should be that any arbitration hearing and documentation is publicly accessible, rather than private as previously provided, subject to confidentiality or	Amendment not made, on basis that all protective provisions agreed to date rely on the currently drafted Schedule 14, including its arbitration confidentiality. Changes would require agreements to be re-negotiated with all statutory undertakers for Scheme.

ExQ2	Questions to:	Question:	Applicant's Response:

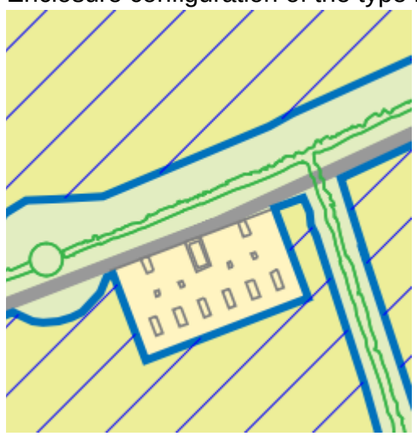
			disclosure exceptions in sub-paragraphs (2) and (3).	
			Amendments to Schedule 16 (protective provisions).	Amendments not made as reflect agreements made by statutory undertakers to West Burton context. Agreements are being separately pursued for Tillbridge with remaining statutory undertakers.
			Amendment to Schedule 17 (Discharge of requirements)	Amendment made to align time period for discharge under paragraph 2 in Schedule to 10 weeks (from eight weeks).

A full reference of the changes made to the draft DCO and where these arise from are set out within the Schedule of Changes to the draft DCO **[EN010142/APP/9.6(Rev03)]**.

The Applicant has also reviewed the conclusions drawn by the Secretary of State in their Decision Letter and the Examining Authority in their Recommendation Report for the West Burton Solar Project and considered if these have any implications for the assessment undertaken and presented in the Tillbridge Solar Project's ES. The Applicant notes that the West Burton Decision has been made for a reduced scheme that excludes above-ground development at the site of the deer park land at Stow Park Scheduled Monument. Due to the reduction to the extent of the West Burton Solar Project, any cumulative effects with this scheme would be reduced or remain the same. However, there would be no change to the overall conclusions on the significance of cumulative effects, as reported within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**. No other aspects of the Decision Letter or the Recommendation Report for the West Burton Solar Project are considered to have an implication on the conclusions of the Tillbridge Solar Project's ES.

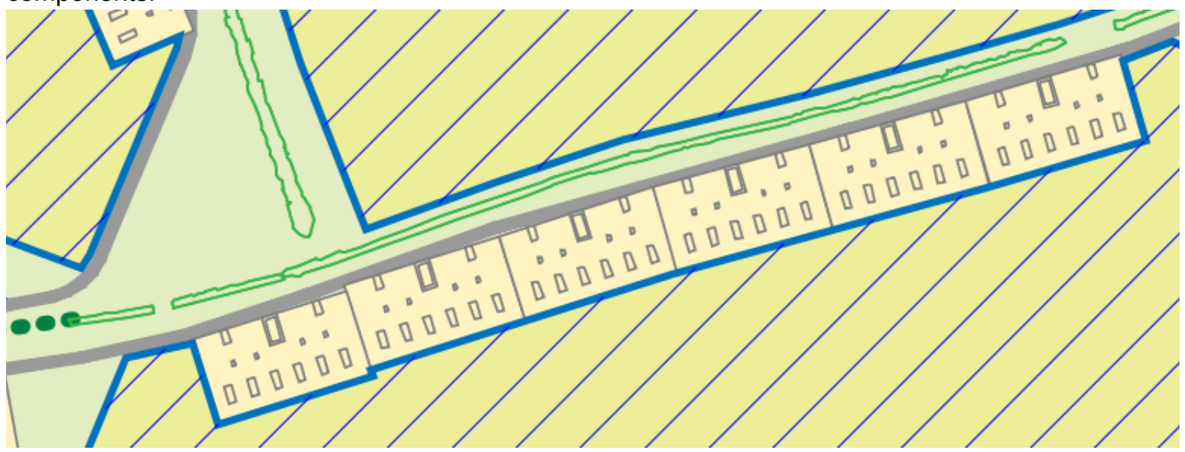
Q2.1.12	Applicant	**Community Liaison Group** The Applicant is proposing that the terms of reference of any Community Liaison Group (CLG) relating to the Scheme are subject to the approval of West Lindsey District Council (WLDC) and Bassetlaw District Council (BDC), as a requirement set out in Schedule 2 of the draft DCO [EN010142/APP/3.1]. Given the CLG is to be principally formed with the purpose of liaising with the community why would the terms of reference for the CLG not also be undertaken in collaboration with the community as discussed and proposed at ISH2?	The Applicant provided the reasoning for this approval sitting with the local planning authorities at Issue Specific Hearing 1 (ISH1) and within its **Written Summary of Applicant's Oral Submissions at the ISH1 [REP1-046]** at page 18 and Appendix E. Namely: • As local planning authorities are the democratically elected representatives of local communities, as well as have allocated resource and experience in planning matters, they are best placed to confirm the initial terms given their understanding of the whole community, its needs and who should be involved in the Community Liaison Group (CLG) as well as the planning matters which are required to be discharged by the group. • Following the initial meeting of any CLG, the group, which will be formed of people living locally and representatives of local interest groups, will then be able to steer how its purpose is achieved and what actions are undertaken. This means that the group can take into account new inputs and preferences directly from community members, and allow the CLG and its terms to develop alongside the Scheme (within the overarching framework of the agreed terms of reference). • The approach for relevant planning authorities to approve the terms of community liaison groups is a well accepted practice across several made DCOs, including the West Burton Solar Project Order 2025 (Requirement 4), the Cottam Solar Project Order 2024

ExQ2	Questions to:	Question:	Applicant's Response:
			(Requirement 4), the Gate Burton Energy Park Order 2024 (Requirement 4), the Longfield Solar Farm Order 2023 (Requirement 6) and the Northampton Gateway Rail Freight Interchange Order 2019 (Requirement 29). The Applicant further notes that: • As the three other Lincolnshire Solar DCOs also provide for relevant local planning authorities to approve the initial terms of their CLGs, providing a similar approval approach for Tillbridge will mean the relevant planning authorities can ensure the terms of such CLGs are complementary and where appropriate, overlap with the other Schemes, given their approval rights across all four DCOs. • Tying approval for Requirement 4 to the local planning authorities ensures that the drafting of the requirement is precise and enforceable, per the relevant paragraphs of the National Planning Policy Framework and associated Planning Practice Guidance concerning conditions (see Q2.1.9 above). Including wording which required discussion and approval from "the community" or a representative interest group would not meet those standards as it would introduce complexity as to how engagement is recorded and met, and introduce complexity should interest groups cease to exist following the Examination process. Requirements for engagement could also be undermined where such engagement may be refused by local community who may oppose the Scheme. By comparison, relevant planning authorities have statutory duties to engage in planning matters like the discharge of requirements.
Q2.1.13	Applicant	**Community Benefit** Can the Applicant further describe the Community Benefit that they are proposing to offer to the community and how negotiations have progressed with Lincolnshire and Nottinghamshire community foundations [REP1-028]?	As outlined in the **Applicant's Response to Relevant Representations [REP1-028]**, should the Scheme receive consent, the Applicant intends to set up a community benefit fund. The Applicant intends that the fund would be independently administered by the community foundations for Nottinghamshire and Lincolnshire. The Applicant held initial discussions with both of the foundations during the pre-application stage and has engaged with both during the course of the Examination. Subject to the Scheme receiving development consent, the Applicant intends to conclude agreements with both foundations to administer the fund in time for the start of the construction period. The community benefit fund would be restricted to supporting initiatives in the area local to the Scheme. Any organisation seeking to make use of the fund would be able to apply for a grant to support their community initiative. The purpose of the community benefit fund is very much that it would be utilised by and for the local community, guided by identified local need. This is not dictated by the Applicant but rather led by what those administering the fund feel would be most appropriate. We anticipate the fund being set up so that it is administered independently with the community guiding how the funds are spent. Therefore, it is not for the Applicant to commit now to what specific projects the funds will support. However, the provision of the community benefit fund provides a good opportunity to support initiatives or projects that, in turn, will support the mental health and wellbeing of people living locally, such as ensuring recreational space is accessible and utilised, by providing recreational facilities or by improving access to specialist support. Such activities could include funding a walking and talking group, for example.

ExQ2	Questions to:	Question:	Applicant's Response:
			The Applicant will be in a position to provide further details relating to the community benefit fund should the Scheme receive consent. This will include details of the quantum of the fund, its geography and the application process.
BESS, Need, Overplanting and Generating Capacity			
Q2.1.14	Applicant	**Amendments to BESS works descriptions and parameters** The ExA has reviewed the amended works description and parameters contained within the Outline Design Principles Statement [REP4-021] and Schedule of Changes to the draft DCO [REP4-033]. However, the ExA has the following queries: a) There were previously up to 140 'BESS Stations' specified within the Outline Design Principles Statement. However, there now appear to be up to 50 'BESS-Solar Station Compounds'. Furthermore, the maximum footprint of the 'BESS solar station and BESS compound' was previously 48mx30m. The maximum footprint of a 'BESS-solar station compound' is now 240x30m. Has the assessment in the ES taken this into account? Is the applicant asserting that the most recent indicative layout plan [AS-055] shows a reasonable worst-case scenario based on these revised parameters? The applicant does not appear to have amended the Outline Design Principles statement to ensure that the BESS-Solar station compounds could not be located next to one another (i.e. all compounds in one area of the site). It is noted that the applicant has tightened up the descriptions in the DCO and Outline Design Principles Statement to ensure a DC coupled approach. This is welcomed. Is the applicant asserting that this approach makes it unfeasible to locate the BESS-solar station compounds in a single location and that therefore there is no need for a specific parameter to address this issue?	The Applicant appreciates that as the first DC-coupled Scheme, the terminology and definitions associated with co-locating BESS enclosures with Solar Stations required clarification. These points were set out in detail within **Appendix A: BESS Definitions Update** to the **Written Summary of Applicant's Oral Submissions at ISH3 [REP4-049]**, and the Applicant refers the Examining Authority to that Appendix for a full explanation. However, in respect of the two queries raised: **ES Assessment of number and footprint of BESS Compounds** **Appendix A: BESS Definitions Update** to the **Written Summary of Applicant's Oral Submissions at ISH3 [REP4-049]** explicitly confirms at 1.2.1 section 1.2.3 that the Outline Design Principles Statement amendments **"**a*djust the parameters for the number and size of these features so that these clearly reflect that these are co-located components. This does not change the design approach which has already been applied within the ES, but rather ensures this is clearly captured and set as restrictions within the Outline Design Principles Statement [EN010142/APP/7.4(Rev03)].*" Appendix A then provides a further detailed breakdown in section 1.3 of how the parameters as amended align with the various technical chapters of the ES. In short, while the parameters reflected in the **Outline Design Principles Statement [REP4-020]** have changed, the design used as the basis for the worst-case scenario assessed in the ES has not been amended or changed. The revisions made relate to refining definitions of the components to assist the ExA and IPs in understanding the DC-coupled design approach and to ensure clarity within the **Outline Design Principles Statement [REP4-020]** in relation to the authorised development as set out in Schedule 1. At the time of submission, what was termed a "BESS station" (to which the footprint of 48mx30m was applied) was a combined Solar Station / BESS Enclosure configuration of the type in the image shown below. 

ExQ2	Questions to:	Question:	Applicant's Response:

This included one "set" of the BESS and Solar Station components, but did not reflect that these can be co-located together in a larger area with multiple sets of components. The new definition of BESS-Solar Station Compound is instead intended to reflect the approach, as has been reflected since application in **Figure 3-1: Indicative Principal Site Layout Plan** of the ES **[AS-055]**, that each BESS-Solar Station Compound may include multiple BESS enclosures and that each Compound would comprise a differing number of BESS enclosures and Solar Stations. For example, see the configuration from Field 77 in Figure 3-1 below, which shows grouped components:



The 140 BESS Stations referred to each individual compound as shown in the first image across the Principal Site even where grouped/multiple BESS-Solar Station Compounds were proposed as shown in the second image within **Figure 3-1: Indicative Principal Site Layout plan** of the ES **[AS-055]**.

The 140 BESS Stations with a dimension of 48mx30m related to the first image above. The 212x30m BESS-Solar Station Compound relates to the second image (Please note there is an error in the ExA Q2.1.14 a) referring to the 'BESS-solar station compound' as 240x30m). This depicts the reasonable worst-case and maximum parameter for the BESS-Solar Station Compound which was assessed in the ES, and is intended to directly address the ExA's concerns that all BESS could be co-located in one area. The new dimensions ensure this maximum 212x30m area applies.

Control to restrict location of all BESS in one area

In respect of the question as to the controls in place to restrict BESS from being located in one area, further to the discussion above the Applicant also notes the specific response to this question within **Written Summary of Applicant's Oral Submissions at ISH3 [REP4-049]** at page 17, specifically that:

In respect of the particular queries raised regarding restrictions on where the BESS could locate and if there was restriction preventing the BESS being located in a small number of locations, the

ExQ2	Questions to:	Question:	Applicant's Response:
			Applicant notes the following design details and controls outlined within the Outline Design Principles: • *The Outline Design Principles require the BESS and Solar Stations to be co-located together in BESS-Solar Station Compounds. Solar Stations, by design, must be located close to the solar PV fields, as they include the relevant equipment for the operation of those panels, and location at greater distances from fields would require excessive and expensive cabling across the site to account for any distance.* • *Maximum parameters have been set for the BESS-Solar Station Compounds so as to ensure they cannot be built larger than the worst case presumptions of the size of the Compounds as assessed in the ES. This precludes BESS being co-located together in larger areas than these maximum extents (212 x 30m).* • *Maximum parameters in respect of effects also control the extent of BESS and their location within the site. For example, compliance with Requirement 17, in respect of operational noise, will require any BESS installations to be designed such that they comply with the noise levels assessed in the ES (which assumes a spread of smaller areas of BESS throughout the site).* Finally, as set out in **Appendix A: BESS Definitions Update** to the **Written Summary of Applicant's Oral Submissions at ISH3 [REP4-049]**, when the Applicant seeks to discharge Requirement 5 for approval of the detailed design of the Scheme's layout, including location of the BESS Solar Station Compounds, the Applicant will need to demonstrate (1) that the BESS-Solar Station Compounds have been designed in accordance with the relevant Outline Design Principles and (2) pursuant to the procedure set out in Schedule 17 to the draft DCO, that the effects resulting from the detailed design submitted for approval are no worse than those set out in the ES. Part (2) of this process is an additional check to ensure BESS-Solar Station Compounds could not be grouped together in such a way that introduced materially new or materially different environmental effects (e.g. in relation to noise or visual) compared to those in the ES. Other controls and design requirements would also influence the siting of the BESS- Solar Station Compounds, such as Requirement 17 which relates to operational noise, as explained below, and the locational requirement for Solar Stations to co-locate next to the solar PV panel areas.
Q2.1.15	Applicant	**Overplanting** The ExA recommendation report in respect of the Mallard Pass Solar Farm scheme states in part at paragraph 3.2.99 that *'in terms of land take associated with overplanting, the applicant estimated in its post hearing note following ISH1 [REP4-022] that 132ha of the 420ha PV array area.*' Whilst the ExA notes the detailed analysis provided in the applicant's Written Summary of Oral Submissions at ISH2 [REP4-045], could the applicant please provide an equivalent comparative figure for the proposed development and provide a justification for any difference in ratio?	The ExA refers to the Mallard Pass Solar Farm scheme in terms of overplanting and specifically paragraph 3.2.99 which states that *'in terms of land take associated with overplanting, the applicant estimated in its post hearing note following ISH1 [REP4-022] that 132ha of the 420ha PV array area.*' The rest of this paragraph is also relevant, which sets out that this is also *"based on an implied overplanting of 110MW out of 350MW of installed capacity as the available grid capacity and connection agreement is 240MW."* Paragraph 3.2.100 of the ExA recommendation report with respect to Mallard Pass then confirms that the overplanting ratio proposed by the applicant lies within the zone in which the benefits of overplanting are maximised at between 1.3 to 1.5 x grid capacity. The ExA agreed and accepted that the case was made for overplanting having regard to the context set out above, the provision of 395ha of mitigation and enhancement areas and due to the fact that the scale of the PV areas would fall within the 2 to 4 acres per MW (2.9) range set out within the then draft NPS EN-3.

ExQ2	Questions to:	Question:	Applicant's Response:
			With respect to the Scheme, the Applicant can confirm that in terms of the land take associated with overplanting, it is estimated that this represents 267.9ha of the 739.56ha PV array area. This derives an overplanting figure of 284MW out of 784MW of installed capacity as the available grid connection agreement is 500MW. The Scheme includes 355ha of mitigation and enhancement areas comprising permissive paths, biodiversity zones, sensitive archaeological sites and proposed woodland. The scale of PV areas would fall within the lower end (i.e. the more efficient end) of the 2 to 4 acres per MW (2.33) based on 784MWp hours. The Scheme aligns with the principles accepted and established by the approval of development consent for Mallard Pass on 12 July 2024. The Scheme comprises an overplanting ratio of 1.57 x grid capacity. The associated land take of the overplanted panels is comparable to Mallard Pass relative to the overall hectares associated with the PV array area. For Mallard Pass, overplanted panels comprise 31% of the total PV array area, compared to 36% of the total PV array area with respect to the Scheme. As previously stated in the detailed analysis set out in the **Applicant's Written Summary of Oral Submissions at ISH2 [REP4-045]**, there is not a one size fits all approach in creating an optimised technical design. Many factors will influence the overplanting ratio considered necessary from a technical design perspective, having regard to the degradation of panels, topography, orientation, and the technical design of associated storage facilities (DC or AC-coupled). One scheme will not be exactly the same as another. The output from the technical design seeks to optimise the benefit of overplanting to create an efficient Scheme which maximises electricity generation whilst ensuring that it is acceptable in the planning balance and justified. The overplanting ratio for the Scheme is reasonable and ensures that the benefits of overplanting, which is supported by NPS EN-3, are maximised.
Q2.1.16	Applicant	**Efficiency** Other solar arrays in the local area appear to be stating generation efficiencies per acre significantly larger than that proposed at Tillbridge, for example 4.94 acres per MW at Cottam Solar Project. Can the Applicant advise why the Tillbridge Solar Project would seem to be producing energy at the lower range of suggested values as set out at paragraph 2.10.17 of NPS EN-3 in comparison to these sites that appear to make more efficient use of the land area?	The Scheme is more efficient than other schemes cited, such as the Cottam Solar Project, as it uses less acres per MW of energy generated (i.e. 2.33 acres needed to generate one MW, rather than 4.9a acres to generate one MW). The **Written Summary of the Applicant's Oral Submissions at Issue Specific Hearing 2 [REP4-045]** includes a post-hearing note on this matter set out on pages 24 to 27. Paragraph 2.10.17 of NPS EN-3 states that *"a solar farm requires between 2 to 4 acres of each MW output."* This is a useful guide to demonstrate how a project will make an efficient use of land, when considered in conjunction with technical design considerations associated with the need for overplanting. This does not relate to the generation of electricity, but the land-take per MW associated with the Scheme. The less land taken per MW for a project (i.e. the lower in the 2-4 acre range a project sits), the more efficient the project in terms of land use. Page 26 of the **Written Summary of the Applicant's Oral Submissions at Issue Specific Hearing 2 [REP4-045]** confirms that the Scheme will have a range between 2.33 and 2.45

ExQ2	Questions to:	Question:	Applicant's Response:
			acres/MW based on the 784MWp, thereby being within the lower range of the 2-4 acres per MW as envisaged by NPS EN-3. The Cottam Solar Project is less efficient than the Scheme, taking significantly more land per MW generated. Despite the fact that the Cottam Solar Project exceeds the 2 to 4 acre of each MW output set out in NPS EN-3, the ExA, at paragraph 3.2.66 of the recommendation report, and agreed by the SoS, considered this acceptable stating: *"Moreover, while we note that, at around 1200ha, the amount of land required for the Proposed Development would exceed the 2 to 4 acres per MW of output identified in 2024 NPS EN-3, we recognise that the amount of land required for large scale ground mounted solar generation will vary significantly depending on the site – with some being larger and some being smaller."* The Scheme maximises the renewable energy yield for the grid connection offer as well as making an efficient and effective use land as demonstrated above.
Q2.1.17	Applicant	**Efficiency** The illustrated example day in [REP01-046] would appear to be a typical summer day when irradiance levels are high. Could the Applicant please provide a further example day of typical low irradiance levels, such as might be experienced during mid-winter, and also what the yields for this day over time might look like in comparison with the example day previously shown.	The Applicant's response to this question has been provided within **Appendix D** of this document.
Q2.1.18	Applicant	**Degradation** The Applicant provides estimates of solar panel degradation over time. Can the Applicant also provide an indication of battery degradation over time and the potential likelihood and frequency of battery replacement over the life of the project?	As detailed in REP3-010, paragraph 3.2.4, Table 3-1, the ES assesses that batteries have an indicative design life of 5–15 years, and assumes they will be replaced on average every 10 years over the operational life of the Scheme. Unlike solar panels, battery degradation is influenced by various factors, including technological advancements, operational conditions, and usage patterns. Battery technology is continuously improving, resulting in lower degradation rates and extended lifespans. A key factor affecting battery longevity is the number of charge-discharge cycles, which currently ranges between 5,000 and 15,000 cycles depending on the specific battery type and manufacturer. The ES assesses a reasonable worst-case scenario for degradation of batteries in terms of the frequency of replacement; however, a more precise degradation pattern can be determined at the detailed design stage.
Q2.1.19	Applicant	**Benefits** Please could the applicant provide a response to 7000 Acres post-hearing submissions [REP4-062] and specifically the assertions made with regard to the difference between 'need' and 'benefit' as well as the reference to NPS EN-1?	Paragraphs 3.2.6 to 3.2.8 of NPS EN-1 confirm that the Secretary of State should assess all applications for development consent for the types of infrastructure covered by the NPS (including solar) on the basis that: 1. Need is established, 2. That the need is urgent, and 3. Substantial weight should be given to this need when considering applications for development consent.

ExQ2	Questions to:	Question:	Applicant's Response:

In accordance with NPS EN-1, the substantial weight to be given to the need for the Scheme forms part of the overall planning balance, and the contribution to the urgent need should be afforded substantial positive weight in favour of the Scheme.

Much of the 7000 Acres response (in relation to Agenda Item 3c – Need) is with regards to the merits of the NPSs, including its suggestion that there needs to be interrogation of the contribution of the Scheme to the urgent need. The submissions made are not relevant to the determination of the Application, and in the case of its submissions about what it references as the "benefit" of the Scheme and its potential contribution, those submissions are incorrect and directly in conflict with paragraph 3.2.8 which makes clear (and is in bold in EN-1 for emphasis) "*The Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS*."

The need and benefits are not two separate things; one of the key benefits of the Scheme is its contribution to the demonstrated urgent need for renewable energy generation. The "need" cannot be separated from the "benefit", as is made clear from the paragraph cited by 7000 Acres from EN-1, paragraph 4.1.5, which provides that when weighing impacts and benefits of a proposed development, the Secretary of State should "take into account … its potential benefits including its contribution to meeting the need for energy infrastructure". This makes very clear that the contribution to the need is a benefit.

Section 2 of NPS EN-1 sets out government policy on energy and energy infrastructure in terms of reaching net zero by 2050, decarbonising the power sector, achieving security of energy supplies, and delivering sustainable development. The urgent need for the Scheme will contribute towards achieving overall government policy and objectives, with each component being a benefit of the Scheme to weigh positively in the planning balance. Due to the established need, paragraph 3.2.8 of NPS EN-1 confirms that the Secretary of State is not required to consider separately the specific contribution of any individual project to satisfy that need is established.

7000 Acres in its **Post-Hearing Submissions [REP4-062]** sets out its position on benefits derived from the electricity generation of the Scheme maintaining that the contribution of electricity supply or to decarbonisation is not significant and that minimal weight should be afforded to this in the planning balance. This approach is directly contrary to national policy, and is inviting the Examining Authority and Secretary of State to consider the Application in a way that is entirely at odds with NPS EN-1 and relevant case law (see for example *Clientearth, R (on the application of) v Secretary of State for Business, Energy and Industrial Strategy & Anor* [2020] EWHC 1303 (Admin) (22 May 2020)). 7000 Acres seeks to set out its own calculation of electricity generation derived from the Scheme and therefore its contribution to future electricity supply and compares this generation with other renewable technologies. With respect, those submissions go the merits of the National Policy Statement and specifically go against the requirements of paragraph 3.2.8 and should be disregarded.

It is beyond dispute that there is a critical national priority (CNP) for the provision of low carbon infrastructure, which includes ground mounted solar. In decision making, the Secretary of State is not required to consider the specific contribution of any individual project to satisfying the need established in NPS EN-1. Paragraph 3.3.63 of NPS EN-1 states:

"*Subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the*

ExQ2	Questions to:	Question:	Applicant's Response:

mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible."

The points raised by 7000 Acres are a criticism of national planning policy as set out within NPS EN-1. 7000 Acres are challenging the contribution of ground-mounted solar to meeting the urgent need for CNP infrastructure, expressing the view that other technologies will make a greater contribution to net zero and produce more electricity. This is in support of 7000 Acres' assertion that substantial weight should not be afforded to the Scheme's contribution to meeting the urgent need for CNP infrastructure in the planning balance. Such an approach is, directly contrary to national planning policy, and is beyond the scope of this examination as per the Planning Act 2008.

In determining the Scheme, the Secretary of State must decide the Application in accordance with the relevant national policy statements, and it is this context which informs how the benefits of a Scheme weigh against its impacts.

The Applicant's **Planning Statement [REP3-027]** sets out how the Scheme is in accordance with the relevant national policy statements and important and relevant matters, and from this considers the Scheme in the overall planning balance. The **Applicant's Comments on Interested Parties Submissions for First Written Questions at Deadline 3 [REP4-048]** sets out how the residual significant effects of the Scheme in relation to landscape and visual matters need to be balanced against the urgent need for the Scheme, which must be given substantial weight in the planning balance with this outweighing the localised landscape and visual effects. The Applicant's view is that the adverse landscape and visual effects are outweighed, including when considered cumulatively with other developments, and that there is not necessarily a need to apply the CNP presumption as a result. The **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]** (pages 4 to14) also responds in detail on this point. The Applicant confirms that the landscape and visual effects are outweighed, including when considering cumulative impacts. This position is then further strengthened when the presumption is applied with respect to the proposed CNP infrastructure concluding that the residual harm associated with the Scheme is far from the types of effects that may be in the realm of exceptional circumstances, let alone "the most" exceptional circumstance.

Without prejudice to this approach, the Applicant maintains that the presumption in favour of consent for CNP infrastructure remains firmly engaged, with the presumption applying *"in all but the most exceptional circumstances"* and the residual harm associated with the Scheme being far from the types of effects that may be in the realm of exceptional circumstances.

Section 7.4 of the **Planning Statement [REP3-027]** sets out the Applicant's position on the overall planning balance having regard to the benefits of the Scheme when weighted against the impacts. It is proven that the benefits of the Scheme are very substantial (in terms of climate change) and significant (in terms of ecology and nature conservation) at both a national, regional and local level, leading to an overwhelming balance in favour of granting development consent for the Scheme.

This is expanded upon further below.

In response to 7000 Acres' assertion that over 50% of schemes can be refused due to the number prospective solar schemes on the Transmission Entry Capacity (TEC), this is not important and relevant in decision making and is not planning policy. NPS planning policy remains unchanged and remains the primary consideration for the determination of the application. Paragraphs 3.2.1 – 3.2.5 of NPS EN-1 make it clear that it is not the role of the planning system to deliver specific amounts or limit any form of infrastructure covered by the NPS. The market-based energy system

ExQ2	Questions to:	Question:	Applicant's Response:
			means that it is not the role of the planning system nor the NPS to propose limits on any new infrastructure that can be consented – it is for industry to propose new energy infrastructure projects that they assess to be viable within the strategic framework set by government, which is the nature of a market-based energy system. The provisions of NPS EN-1 make it clear that the government does not consider it appropriate for planning policy to set limits on different technologies. For example, paragraphs 3.2.4 and 3.2.5 of NPS EN-1 provide as follows: *"It is not the government's intention in presenting any of the figures or targets in this NPS to propose limits on any new infrastructure that can be consented in accordance with the energy NPSs. A large number of consented projects can help deliver an affordable electricity system, by driving competition and reducing costs within and amongst different technology and infrastructure types. Consenting new projects also enables projects utilising more advanced technology and greater efficiency to come forward.37 The delivery of an affordable energy system does not always mean picking the least cost technologies. A diversity of supply can aid in ensuring affordability for the system overall and relative costs can change over time, particularly for new and emerging technologies. It is not the role of the planning system to compare the costs of individual developments or technology types.* *The government has other mechanisms to influence the delivery of its energy objectives and imposing limits on the consenting of different types of energy infrastructure would reduce competition, increase costs, and disincentivise newer, more efficient solutions coming forward. This does not reduce the need for individual projects to demonstrate compliance with planning and environmental requirements or mean that everything that obtains development consent will get built."*7000 Acres's purported analysis of the contribution of other consented projects against targets included in the NPS is therefore not relevant to the determination of the Application, and their submissions invite the Examining Authority and Secretary of State to determine the Application in a manner not compliant with the NPS EN-1, in particular section 3.2.
Q2.1.20	Applicant	**Overplanting** LCCs Post-Hearing Representations [REP4-051] state in part: *'The applicant has failed to provide any robust answer as to why the scheme is required to be overplanted at a rate of 157%. The applicant's answers to the ExA's First Written Questions noted that "the proposed overplanting ratio is specifically tailored to the Scheme's DC-coupled configuration" [REP3-062 p.12, Q1.1.18]. However, it transpired during ISH2 that the DC coupled configuration would have no bearing on the overplanting ratio. As such, the applicant appears to have withdrawn their explanation as being incorrect. At the hearing, the applicant then relied upon a comparison with Mallard Pass, however, this project had a lower overplanting ratio'* **Please could the applicant provide a response?**	The Applicant considers that it has provided a detailed response with respect to its approach to overplanting with the reasons for this being set out in the **Written Summary of Oral Submissions at ISH2 [REP4-045]** and expanded upon in paragraphs 8.2.16 to 8.2.18 of **Appendix B** of its **Written Summary of Applicant's Oral Submissions at ISH1 [REP1-046]**. The Scheme adheres to NPS EN-3 (Ref 1-4), comprising an appropriate level of overplanting that is justified, and uses a reasonable amount of land (within the 2-4 acre / MW guideline outlined in NPS EN-3), which maximises the renewable energy yield for the grid connection offer. The Applicant has demonstrated that its approach to overplanting is reasonable and justified and supported by NPS EN-3.
Q2.1.21	7000 Acres	**Overplanting**	No response from Applicant required.

ExQ2	Questions to:	Question:	Applicant's Response:
		In its post-hearing submissions [REP4-062] 7000 Acres state in part: '*For an overplanted scheme, additional panels are installed, and the applicant seeks to use the full grid capacity for a greater proportion of the time (as opposed to overcome performance degradation over time). The unfortunate consequence of this is that the electricity that would exceed the grid connection capacity is "clipped" or curtailed and effectively lost. This means that, while the volume of energy produced over a day is increased, because of the increased installation of panels, the yield of the installed capacity falls, and the effective output per-panel is reduced.'* However, could 7000 Acres please comment on whether the proposed BESS would reduce the clipped energy?	

3. Biodiversity and ecology

Table 3-1: Biodiversity and Ecology

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.2.1	Applicant, WLDC, LCC	**Ground Nesting Birds** What is the potential for change to ground nesting bird populations arising from the construction phase and operational phase of the development? How will these populations change over time and also how will species dependant on these populations such as birds of prey change as a result?	Impacts on breeding and non-breeding birds, including ground nesting birds, such as Skylark, are assessed in **Chapter 9: Ecology and Nature Conservation** of the ES **[APP-040]**. The Applicant provided a detailed response on impacts on Skylark under Q1.2.3 in the **Applicant's Response to Examining Authority's First Written Questions** at Deadline 3 **[REP3-062]** and an additional response on this matter was also provided within the **Written Summary of Applicant's Oral Submissions at the ISH3 [REP4-049]**. Over 200ha of undeveloped land in open 'Biodiversity Zones', along with over 1,000 ha of grassland creation, has been incorporated into the Scheme design, as set out within the **Framework LEMP [EN010142/APP/7.17(Rev05)]**. This habitat creation will benefit a wide range of bird species, including ground nesting birds, ensuring no net displacement or reduction of bird populations. **Chapter 9: Ecology and Nature Conservation** of the ES **[APP-040]** concluded that with the habitat creation and enhancement measures provided by the Scheme there will be a significant moderate beneficial effect on the general breeding bird assemblage generated by the additional foraging, roosting and potential nesting habitat provided. To clarify, there will be no adverse effect on birds of prey. In fact, with the creation of extensive areas of permanent grassland, hedgerow and tree planting and sensitive management of habitats for biodiversity, there will be an increase in the abundance of both bird and small mammal/rodent prey for birds of prey present within the Scheme.
Q2.2.2	Applicant, WLDC, LCC, Natural England	**Species Increase** Post construction and during the operational phase the enclosed and protected nature of the site might give rise to population growth of a variety of species as has been noted at other significant sites of change from agriculture to a managed biodiversity site. What are the risks presented to the community by this potential growth and how does the Applicant propose to manage it to avoid it becoming a nuisance such as pests, or risk, such as collision with traffic?	Whilst the areas of solar PV will have perimeter security fencing, the majority of existing features such hedgerows, woodlands and watercourses will be outside of this security fencing, meaning that there will be limited disruption to existing ecological connectivity and movement of wildlife across the landscape. Irrespective of this, the security fencing will be permeable for the vast majority of species, with passes at the base to allow small/medium mammals access to the solar PV areas. The habitat creation and management of the Principal Site for biodiversity, as established through the **Framework LEMP [EN010142/APP/7.17(Rev05)]**, has been designed to incorporate and support local strategic priorities for biodiversity and as such the growth of biodiversity will be reflective of habitats and species native to this region of Lincolnshire. The Applicant does not envisage any scenario where any species benefiting from the Scheme would present any risks to local communities. To ensure that no invasive non-native species are introduced to the site during construction, a Biosecurity Management Plan will be produced and implemented as set out in **Table 3-4** of the **Framework CEMP [EN010142/APP/7.8(Rev03)]**.

4. Climate Change

Table 4-1: Climate Change

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.3.1	Applicant	**Data** The applicant's response to Q1.3.1 [REP3-062] indicated that the latest version of the ICE database is expected to be released in December 2024. Please could the applicant provide a comparative table to indicate how the data has changed (assuming that the database was updated in December 2024)? If that comparison indicates that the embodied carbon of components is worse than that assessed, then please update the assessment contained within the ES.	As set out in the response provided on this matter within the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** under Q1.3.1, any changes to emissions factors within the updates ICE v4 would be immaterial to the assessment presented in **Chapter 7: Climate Change** of the ES **[APP-038]**. ICE database emissions factors were used only for the concrete required for any foundations on the Principal Site, and for any steel reinforcement and fencing required. These components accounted for <1% of the Scheme's embodied carbon footprint (3,009 tCO_2e). Having reviewed the updated ICE v4 database, any changes in emissions factors have been positive, either remaining the same or lowering in comparison to ICE v3. This is illustrated in the below table: **Material** | **ICE v3 Emissions Factor ($kgCO_2e/kg$)** | **ICE v4 Emissions Factor ($kgCO_2e/kg$)** General Concrete | 0.103 | 0.103 Steel - Rebar | 1.99 | 1.72 Steel – Hot dip galvanised steel | 2.76 | 2.62 These changes would result in a reduction of 221 tCO_2e, or 0.03% of the Scheme's embodied carbon footprint. As the change is beneficial, and of a very low magnitude, the Applicant does not consider it necessary to update the assessment on this basis.
Q2.3.2	Applicant	**Replacement** The ExA notes the applicant's response to Q1.3.2 [REP3-062]. However, the estimated panel lifespan provided by applicant ranges from 25 to 40 years. As such, taking a worst-case scenario approach, could the panels be replaced more frequently?	The Applicant notes the response provided on this matter within the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** under Q1.3.2 and reiterates that the IEMA guidance on greenhouse gas emissions (Ref 1-5) recommends that a 'reasonable worst case' be defined for an assessment. The estimated lifespan of between 25-40 years for the solar PV modules is set out in **Table 3-1** in **Chapter 3: Scheme Description** of the ES **[REP4-012]**, which is the range of predicted lifespans in published solar panel EPDs. As presented in the Applicant's previous response to this query, the middle of the range, 30 years, was selected as a representative figure for the lifespan. It is considered most likely the panels will only be replaced once over the 60-year operational phase that is being applied for within the **draft DCO [EN010142/APP/3.1(Rev06)]**. If the panels were to be replaced more frequently (i.e. a second time before decommissioning at the end of the 60-year operational period), this would result in panels being removed as part of decommissioning when they are only part way through their design life. This would not be an efficient use of panel technology and no reasonable undertaker would install panels with a design life that extends that far beyond the operational phase. Furthermore, it is very likely that solar technology will improve in the future, potentially increasing the lifespan of PV modules. As such, it is a reasonable worst-case to assume that panels will be replaced no more than once over the 60-year operational phase of the Scheme.

ExQ2	Questions to:	Question:	Applicant's Response:
			The Applicant notes that a 30-year lifespan for solar panels has been assumed for the GHG impact assessments for similar solar schemes, such as the recently consented Gate Burton Energy Park [EN010131].
Q2.3.3	Applicant	**Diesel** The ExA note the applicant's response to Q1.3.4 [REP3-062]. However, do the examples given take into account the diesel required for transportation of BESS units, on-site substation infrastructure and components for development at Cottam sub-station?	The response to Q1.3.4 within the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** was in relation to the use of diesel for the operation of construction machinery, rather than the transportation of materials. Paragraph 7.3.12 of **Chapter 7: Climate Change** of the ES **[APP-038]** confirms that emissions from the transportation of components and materials to the Scheme have been calculated based on assumed transport modes and distances for all materials and components. As presented in Table 7-13 in **Chapter 7: Climate Change** of the ES **[APP-038]**, all emissions relating to material transport and associated diesel consumption have been considered during the construction phase. Transport of materials and components required for maintenance is considered as part of the maintenance total in Table 7-14 in **Chapter 7: Climate Change** of the ES **[APP-038].**
Q2.3.4	Applicant	**LCC** Bearing in mind the response received from LCC in relation to Q1.3.10 and Q1.3.11 [REP3-065] could the applicant please provide a response to the assertions made by LCC in relation to climate change within document reference REP2-012?	The Applicant provided a response to LCC's position in the **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]**, pages 14-15. In summary, in line with IEMA guidance on assessing greenhouse gas emissions (Ref 1-5), it is currently not best practice to undertake a cumulative GHG assessment on multiple projects as there is no clear rationale on defining the boundary of the assessment, as the receptor is the global climate, and all emissions have the potential to be significant. IEMA guidance is clear that there is no basis or rationale for selecting any particular project that has GHG assessments over any other. IEMA instead suggest that the contextualisation of emissions against geographic or sectoral carbon budget is inherently cumulative by considering the impact of the project against UK carbon budgets and sectoral ceilings. Notwithstanding this, the Applicant notes that if a cumulative assessment of the solar schemes in Lincolnshire was to be considered, they all play a role in decarbonising the grid in line with the UK's net zero targets and would achieve a significant beneficial cumulative impact on GHG emissions compared to the baseline where the projects do not go ahead.
Q2.3.5	Applicant	**Baseline** The ExA notes the applicant's responses to Q1.3.6 and 1.3.9 [REP3-065]. The applicant has highlighted that: *'IEMA guidance states that a comparable baseline must be used as a reference point against which the impact of a new project can be assessed, which may be "GHG emissions arising from an alternative project design for a project of this type" (Ref 1-20)'* However, are Combined Cycle Gas Turbine (CCGT) schemes the same (or similar) 'type' of project as solar generating stations? Furthermore, is it likely that a new CCGT would be constructed if this proposed development did not go ahead, bearing in mind the emphasis in Government planning policy on supporting renewable technologies, combatting climate-change and reducing carbon emissions (NPS EN-1)?	The IEMA guidance (Ref 1-5) on setting baseline says that emissions can take the form of '*emissions arising from an alternative project design and/or BaU for a project of this type'*. In this case the CCGT is not an alternative design, instead a representation of Business as Usual (BaU), if the Scheme was not to go ahead. The baseline is not considering that there would be a new CCGT constructed if the Scheme did not go ahead, instead that existing CCGT capacity would continue in a 'Business as Usual' case, if renewable projects such as the Scheme are not consented. It is reasonable to assume that as additional renewable energy generation capacity becomes available, such as from the Scheme, it will reduce demand for the marginal generator, i.e., directly displace the use of CCGT. The carbon intensity, 70gCO_2e/kwh for the worst-case whole life carbon assessment as per paragraph 7.8.20 of **Chapter 7: Climate Change** of the ES **[APP-038]** is of a similar magnitude to other solar projects. Other solar schemes in examination or previously consented have had a carbon intensity between 10-50gCO_2e/kwh. The intensity for the Scheme is higher due to the emissions associated with the increased battery capacity and replacement of batteries over its lifetime. In addition, for comparison, offshore wind projects recently consented have a range of carbon intensities of around 10-20gCO_2e/kwh. Sizewell C new nuclear power station is anticipated to have an intensity of 4.5gCO_2e/kwh. Neither of these intensities consider energy storage, so are not directly comparable to the 70g CO_2e/kwh figure provided. The Applicant would note that given the NPS EN-1 (Ref 1-1) need for renewable energy that these other renewable

ExQ2	Questions to:	Question:	Applicant's Response:
			sources do not constitute alternative project designs, and instead are additional projects that are required to achieve the UK's net zero targets and hence are not a reasonable baseline for comparison.
Q2.3.6	Applicant	**GHG Assessment** The applicant's response to written submissions [REP3-063] does not appear to address in detail the written representation submitted by 7000 Acres [REP2-018], specifically in relation to 'climate change assessment'. Could the applicant please provide a response to the assertions at paragraph 4.1.1 in relation to food production and import, biofuels production and woodland?	The Applicant was unable to identify any paragraph, or paragraph 4.1.1, relating to food production and import in the reference given by the ExA for **[REP2-018]** (**7000 Acres Written Representations – Landscape Review**). The Applicant assumes that this question relates to the comments made by 7000 Acres in paragraph 4.1.1 of **[REP2-033]** (7**000 Acres Written Representations - National Policy Statements and Application of Planning requirements**). The Applicant has responded to similar comments made by LCC in response to Q1.3.10 in **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]**, page 14. This response highlighted that the Secretary of State has previously determined that other similar solar schemes are not likely to impact on food security, with the site selection process aiming to minimise the use of any Best and Most Versatile (BMV) Land (Grade 1,2 or 3a). The Scheme is located primarily on lower quality agricultural land, with the majority of the Scheme (>95%) being on non-BMV land . The current and future baseline conditions do not include consideration of biofuel production or woodland carbon sequestration as there is currently no existing production or proposals to utilise the land in this manner. A baseline reference point should consider either: (a) the current GHG emissions (or sequestration) within the site; or (b) the emissions resulting from an alternative project design (Ref 1-5). It is therefore not considered appropriate to include any/all potential alternative uses of the Principal Site within the future baseline scenario.
Q2.3.7	Applicant	**Future Yields** The Applicant has commented that the potential yields of the power generated at the site may increase with climate change as a result of sunnier days in the future. Can the Applicant provide some sensitivity analysis to forecast what these yield increases may look like based on the most recent UK Climate Projections and also how a daily yield for an example day of maximum irradiance might change including over production and battery storage requirements.	There is currently no easily accessible public information regarding the projected solar irradiance at the project location. Any increase is likely to be minor, and well with the production capacity of the PV panels and BESS system. All calculations presented within the GHG assessment in **Chapter 7: Climate Change** of the ES **[APP-038]** are based on current day conditions, with any change in irradiance due to climate change likely to have a non-significant effect on operations.

5.Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations

Table 5-1: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.4.1	Applicant	**Human Rights** The Applicant cites the examination process, its hearings and public register of the application as means in which the relevant articles of the human rights of interested parties and affected persons for the examination are being addressed. This is principally the process of Nationally Significant Infrastructure Project examination that is being undertaken and the ExA wishes to understand to what lengths and any examples the Applicant has gone to over and above this minimum required process to ensure the human rights of all parties affected by the examination are being protected.	The European Convention on Human Rights (the "Convention") is incorporated into UK law through the Human Rights Act 1998 (Ref 1-6). Section 10 of the **Statement of Reasons [REP1-014]** sets out the relevant Articles of the Convention in respect of which the Secretary of State is under a duty to consider whether the exercise of powers under the **draft DCO [EN010142/APP/3.1(Rev06)]** interacts with rights protected by the Convention. These are Article 1 of the First Protocol to the Convention (right to peaceful enjoyment of possessions), Article 6 (right to a fair and public hearing) and Article 8 (right to private and family life, home and correspondence). The steps taken by the Applicant in ensuring the protection of each of these rights are addressed below: • Article 1 of the First Protocol – The infringement of Article 1 is authorised by law provided that it is proportionate and the statutory procedures for making the Order are followed and there is a compelling case in the public interest for the inclusion of compulsory acquisition powers in the **draft DCO [EN010142/APP/3.1(Rev06)]**. In preparing the Application, the Applicant considered the potential infringement of this right as a result of the exercise of compulsory acquisition powers and sought to minimise the amount of land over which such powers are sought. The Applicant has continued to seek opportunities to minimise the extent of compulsory acquisition powers required through the pre-examination and examination phases, including by agreeing a shared cable route corridor with the other solar schemes in the area and removing further areas of land from the Order limits through the Change Request (refer to the **Change Request Report [AS-065]**, in direct response to discussions with affected persons. The Applicant has set out in the Application and its various representations the very significant public benefits that will arise from the making of the Order for the Scheme, which can only be realised if the **draft DCO [EN010142/APP/3.1(Rev06)]** includes powers of compulsory acquisition. For those persons affected by the inclusion of such powers, compensation is payable in accordance with the statutory compensation code. • Article 6 – This Article guarantees those persons affected by the compulsory acquisition powers sought through the **draft DCO [EN010142/APP/3.1(Rev06)]**a fair and public hearing of any relevant objections they may have, including in respect of property rights. This right is protected through the statutory process set out under the Planning Act 2008 (Ref 1-2) and associated regulations. Affected persons have had the opportunity to have their objections heard at Compulsory Acquisition 1 on 16 January 2025, as well as both Open Floor Hearings (which took place on 15 October 2024 and 14 January 2025). In addition to these hearings, affected persons have also had the opportunity to be heard via written submissions across multiple examination deadlines. At each deadline, the Applicant has carefully reviewed and responded to any concerns or objections raised by affected persons at the previous deadline. • Article 8 – As the Order limits do not include, and the Scheme does not require, the outright acquisition of any residential dwelling-houses, none will be directly affected by the Scheme such that it is not anticipated that the rights protected by this Article will be infringed. If these rights were to be infringed, however, it would be justifiable on the basis that it would be lawful and in the public interest for the reasons outlined above.

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.4.2	Applicant	**Affected Persons** Can the Applicant provide an update on negotiations with regards to affected persons where heads of terms remain to be agreed?	The Applicant has submitted an updated **Schedule of Negotiations and Powers Sought [EN010142/APP/4.4(Rev04)]** at Deadline 5, which includes updates in track changes to reflect the latest position on negotiations with affected persons (where the position has changed since Deadline 4).

6. Cumulative and in-combination effects

Table 6-1: Cumulative and in-combination effects

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.5.1	WLDC	**Cumulative Construction Period** • In responding to Q1.1.6 [REP3-067] WLDC provides justification to support its assertion that cumulative construction could last for ten years. However, the response also states: • '*To confirm, WLDC does not object to the cumulative assessment in the Tillbridge ES'.* How can this be the case when the assessment of cumulative effects contained within the ES [REP4-015] is based on two scenarios, with the longest comprising a cumulative construction period of 5 years?	No response required from the Applicant.
Q2.5.2	Applicant	**Cumulative Construction Period** 7000 Acres' response to Q1.1.6 [REP3-092] states in part: *'What the applicants have failed to advise the ExA's is that according to the NESO Tec Register dated 26 November 2024, the earliest grid connection date is 01/08/2028 with the last project having a connection date of 31/10/2029. Applying similar durations and timing relationships to the Design, Construction and Commissioning activities, but relating the completion dates to align with the grid connection dates, results in an entirely different sequence for the projects. We have assumed that the applicants would not want a completed project to sit unused for any length of time, so have delayed the start of design until later for some projects.'* **Could the applicant please provide a response to this specific point and provide evidence of the earliest grid connection dates available? Please also confirm whether these dates have any bearing on the assessment undertaken within the ES?**	The Applicant confirms that the National Energy System Operator (NESO) Transmission Energy Capacity (TEC) register (Ref 1-7) includes the latest available connection dates, however the Applicant notes that the Scheme's and any cumulative schemes' connection dates are indicative and may change. The Applicant provided a response to this comment at Deadline 4 within the **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]**, which stated in part that the cumulative environmental effects are not likely to be materially different, if the start dates of the projects were changed, and the magnitude of any cumulative impacts would be less, if the construction peaks did not overlap.
Q2.5.3	Applicant	**Cumulative Construction Period** The ExA has received representations with respect to the anticipated construction programme of the proposed project and the concurrent and cumulative construction programme of the other NSIPs in the area including the potential for combined working on the cable route corridor. Could the applicant produce a draft construction programme illustrating the likely construction period alongside that of other projects in the area should consent be obtained? This may be indicative or using best	The Applicant notes that the anticipated construction programme of the Scheme and the other nearby solar NSIPs (Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project) are indicative and subject to change. However, the assessment of cumulative effects presented within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** has considered a worst-case scenario based on publicly available information relating to their construction, whereby in Scenario 1, the peak of construction activity overlaps across all of the cumulative schemes or whereby in Scenario 2, the construction of the cumulative schemes is completed sequentially over a 5-year period (refer to paragraph 18.4.28 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**). These assessment scenarios are consistent with the methodologies of the other solar DCOs ESs.

ExQ2	Questions to:	Question:	Applicant's Response:
		estimate of timelines where the full detail of other construction programmes is not known.	**Table 2-1** of the **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]** presents the predicted construction start date, predicted end of construction dates and predicted connection date for each of the projects listed above, as they were known at Deadline 3 when it was submitted into examination. Construction periods have been calculated using these dates: • Gate Burton Energy Park [EN010131] – 24-36 months; • Cottam Solar Project [EN010133] – 24 months; • West Burton Solar Project [EN010132] – 24 months; and • Tillbridge Solar Project [EN010142] – 24-36 months. The Applicant has reviewed the NESO's TEC register dated 11 February 2025 (Ref 1-7). The register indicates the following connection dates for the cumulative solar NSIPs and the Scheme: • Gate Burton Energy Park [EN010131] - 30/07/2030 (Q3 2030); • Cottam Solar Project [EN010133] - 01/09/2029 (Q3 2029); • West Burton Solar Project [EN010132] - 30/11/2028 (Q4 2028); • Tillbridge Solar Project [EN010142] - 27/08/2028 (Q3 2028). Utilising the construction periods presented within Table 2.1 of the **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]** and the latest connection dates presented within the TEC register, as summarised above, Figure 1 below presents the indicative construction periods for each application. This is presented alongside the construction periods presented within Table 2.1 of the **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]** for comparison. **Figure 1 Indicative Construction Periods for the Tillbridge Solar Project and Nearby Solar NSIPs** Scheme / Year: 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 Quarter: 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 Gate Burton Energy Park EN010131 – Interrelationships Report [REP3-031] dates Gate Burton Energy Park EN010131 – Revised dates based on TEC Register Cottam Solar Project EN010133 – Interrelationships Report [REP3-031] dates Cottam Solar Project EN010133 – Revised dates based on TEC Register West Burton Solar Project EN010132 – Interrelationships Report [REP3-031] dates West Burton Solar Project EN010132 – Revised dates based on TEC Register Tillbridge Solar Project EN010142 – Interrelationships Report [REP3-031] dates Tillbridge Solar Project EN010142 – Revised dates based on TEC Register Key: Interrelationships Report [REP3-031] Construction Period; Interrelationships Report [REP3-031] Connection Date; Revised Construction Period based on TEC Register; Revised Connection Date based on TEC Register *Note: The connection dates provided within **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]** for Cottam Solar Project and West Burton Solar Project noted that there is potential for an earlier connection date to be achieved.*

ExQ2	Questions to:	Question:	Applicant's Response:
			On the basis of the construction periods presented within Figure 1 above, the cumulative construction period is either Q4 2024 to Q1 2028 on the basis of the dates currently included within Table 2.1 of the **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]** or Q3 2026 to Q2 2030 on the basis of the dates within the TEC register. The dates remain indicative and subject to change. However, in either scenario, the assessment presented within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** remains valid, as it has considered a scenario where the peak construction of all of the schemes overlaps and a total cumulative construction period of 5 years.
Q2.5.4	Applicant	**Cumulative Construction Period** Representations have been received from many parties relating to the potential for ongoing disruption to the cable route corridor as each potentially successful scheme opens up the site for cable works and the potential for restoration to be intermittent and unsuccessful due to this continued disturbance. Can the applicant advise how the coordinated cable route works would be programmed and aligned to minimise the length of disturbance to affected persons and residents?	The Applicant has in part provided a response to the point of coordination with the other nearby NSIPs above at Q2.1.6 in relation to shared management plans. The **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]**, most recently updated at Deadline 3, demonstrates the Applicant's commitment to cooperation with the developers of the nearby NSIPs, including (for example) a signed cooperation agreement between the four solar developers at **Appendix C [APP-216]**. Whilst a private agreement such as this falls outside of the DCO process, it demonstrates that there is an agreement in place for all parties to cooperate with each other and to act reasonably and in good faith, specifically to mitigate adverse impacts on persons with an interest in the land affected by the projects (clause 4.1.2). As set out in the **Statement of Common Ground with Other Solar Developers [REP1-037]**, the four developers are also in active discussions regarding a further cooperation agreement that will relate to the coordination of works and collaboration between the parties in respect of the discharge of requirements and the detailed design stages for the four projects. Furthermore, the four developers have all agreed reciprocal protective provisions included in their respective DCOs. The agreed protective provisions for the benefit of Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project included within the **draft DCO [EN010142/APP/3.1(Rev06)]**. As summarised within paragraph 4.1.11 of the **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [REP3-031]**, these protective provisions include the following requirements: • Works within the area of overlap, within a set distance of 25m from the area of overlap between projects or any apparatus or which may adversely affect apparatus (specified works), including proposed apparatus, must be carried out with prior consent from the other solar developers (as relevant), not to be unreasonably withheld or delayed, and subject to a deemed approval mechanism; • There is provision for advance sharing of plans for specified works and approvals of works being subject to conditions; • Access must be maintained for another party to access its works; or alternatives provided. The above measures demonstrate that, in accordance with the agreed protective provisions, works within the shared Cable Route Corridor will be coordinated between the developers. In addition to including reciprocal protective provisions, each undertaker has included bespoke transfer of benefit provisions within their respective DCOs, including the **draft DCO [EN010142/APP/3.1(Rev06)]**, to facilitate ease of transfer of relevant rights to the other named undertakers where they relate to the shared cable corridor. The purpose of this provision is to enable the appointment of a joint contractor, or to allow one or more undertakers to undertake works on behalf of the other, if appropriate, post-detailed design.

ExQ2	Questions to:	Question:	Applicant's Response:
			Furthermore, where the schemes share access points along the Cable Route Corridor or where public road improvements are proposed across multiple schemes (e.g. along Torksey Ferry Road), these works would only need to be undertaken once and can then benefit all of the schemes. The Applicant considers that it has done as much as it can within the legislative framework available to support joint working if/as the projects progress to the construction phase.
Q2.5.5	LCC	**Glentworth Oil Well Planning Permission** Please could the applicant provide copies of the approved planning application documents and decision notice for LCC Planning Application reference number: PL/0135/22?	No response required from the Applicant.

7. Draft Development Consent Order (DCO)

Table 7-1: Draft Developments Consent Order (DCO)

ExQ2	Questions to:	Question:	Applicant's Response:
Article 40. Trees subject to tree preservation orders			
Q2.6.1	Applicant	**Tree Preservation Orders** There would appear to be a contradiction where during ISH1 it was stated that there are no existing Tree Preservation Orders (TPO) within the order limits and that the relevant requirement in the dDCO is to help prevent trees being designated during the life of the development and then consequential impacts on working with those trees. However, the Applicant has advised of the potential for TPOs to be in place on two trees within the cable route corridor. Please can the Applicant confirm the extant of TPOs existing on site and the reason why this requirement is needed within the dDCO?	The Applicant considers its response provided at ISH1 and in the **Written Summary of Oral Submissions at the ISH1 [REP1-046]** at page 16 addresses this question, being that: • There are two existing TPOs within the Order limits, namely within the Cable Route Corridor. • However, as indicated within the proposed cable routing captured within **Arboricultural Impact Assessment Part 3 [APP-109]**, the Scheme proposes to avoid direct impacts on these trees through micro-siting and detailed design for the cabling through this section of the Cable Route Corridor. • Instead, the Applicant still proposes to retain this Article to protect against the ongoing construction, operation and maintenance of the Scheme being interrupted or affected by a TPO which a local authority may implement in the future. There is some likelihood that TPOs could be applied over the course of the Scheme's operation, given the extent of time for which the Scheme is anticipated to operate (ie 60 years), over which the values of trees within the Order limits may change. The Applicant cannot risk the construction or operation of the Scheme being blocked by a future order, noting that the Scheme is a nationally significant infrastructure project.
Schedule 15 – Protective Provisions			
Q2.6.2	Applicant Statutory Undertakers	**Protective Provisions** Please can the applicant provide an update with regards to the remaining outstanding protective provisions with statutory undertakers and the likelihood of these draft protective provisions being agreed prior to the closure of the examination?	As previously noted to the ExA in the **Written Summary of the Applicant's Oral Submissions at ISH3 [REP4-049]**, final agreed protective provisions are included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the following statutory undertakers: **Canal and River Trust**, **Lincolnshire Fire and Rescue**, **Scunthorpe and Gainsborough Drainage Board**, **Upper Witham Drainage Board**, **Gate Burton Energy Park**, **Cottam Solar Project**, **West Burton Solar Project**, **Cadent Gas** and **Anglian Water**. In addition, the **Minister of Defence**, **National Gas** and **Vodafone** have all confirmed that they have no assets or apparatus that will be impacted by the Scheme, such that protective provisions are not required. Since the last update provided to the ExA at Issue Specific Hearing 3, the Applicant has reached agreement with the following statutory undertakers regarding protective provisions: • **Uniper** - the Applicant can confirm that the bespoke protective provisions included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the benefit of Uniper are agreed between the parties, as evidence in the **Letter regarding Tillbridge and Uniper agreeing PPs [REP4-050]**. • **Environment Agency (EA)** – the Applicant can confirm that the bespoke protective provisions included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the benefit of the EA are now agreed between the parties. The Applicant notes there are other aspects of the EA's position on the Scheme in respect of which discussions remain ongoing, as reflected in the **Environment Agency SoCG [EN010142/APP/9.16(Rev02)]**. • **Northern Powergrid** – the Applicant can confirm that the bespoke protective provisions included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the benefit of Northern Powergrid are now agreed. The parties have also reached agreement on a side agreement which will supplement the agreed protective provisions, which is currently in the process of completion. The Applicant understands that once these agreements have been executed between the parties, Northern Powergrid's objection to the Scheme will be resolved.

ExQ2	Questions to:	Question:	Applicant's Response:

- **Exolum** - the Applicant can confirm that the bespoke protective provisions included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the benefit of Exolum are agreed between the parties.
- **Openreach** – Openreach have confirmed that they do not require bespoke protective provisions and agree to the standard protective provisions included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the benefit of telecommunications providers.

Of the remaining statutory undertakers, the Applicant can provide the following update:

- **EDF** – the Applicant and EDF have progressed discussions with respect to EDF's preferred protective provisions since Deadline 4, with the outstanding issues between the parties being further narrowed. The Applicant is confident that protective provisions can be agreed with EDF in time for submission at Deadline 6.
- **National Grid Electricity Transmission (NGET)** – the Applicant is awaiting a response from NGET with respect to the Applicant's comments on NGET's standard protective provisions. The Applicant is continuing to follow up with NGET's representatives with a view to progressing discussions. While the Applicant cannot provide exact timescales for resolution at this stage, the Applicant is confident that agreement can be reached within the timescales of the examination.
- **Trent Valley Internal Drainage Board (TVIDB)** – the Applicant is awaiting a response from TVIDB with respect to the standard protective provisions included in the **draft DCO [EN010142/APP/3.1(Rev06)]** for the benefit of drainage boards. The Applicant is continuing to follow up with Trent Valley IDB and their appointed solicitor with a view to progressing discussions. While the Applicant cannot provide exact timescales for resolution at this stage, the Applicant will continue to do so, and is confident that agreement can be reached within the timescales of the examination.
- **E.ON** – the Applicant is continuing to seek to confirm with E.ON the nature of its rights which have been identified in land referencing, and whether these relate to assets which would require protective provisions. While the Applicant cannot provide exact timescales for resolution at this stage, the Applicant will continue to progress these discussions, and is confident that agreement can be reached within the timescales of the examination.
- **iGas Energy** – the Applicant is currently liaising with iGas to confirm the nature of impacts (if any) on their assets, after which the parties will be able to confirm whether the standard protective provisions for gas undertakers included within the **draft DCO [EN010142/APP/3.1(Rev06)]** are sufficient. While the Applicant cannot provide exact timescales for resolution at this stage, the Applicant will continue to progress these discussions, and is confident that agreement can be reached within the timescales of the examination.
- **Prowind Cottam Windfarm, Severn Trent Water, Virgin Media, Western Power Distribution** – the Applicant wrote to these statutory undertakers in September 2023 enclosing the standard protective provisions applicable to their respective assets/apparatus and offering to commence discussions regarding the inclusion of protective provisions in the **draft DCO [EN010142/APP/3.1(Rev06)]**. No responses were received to that initial correspondence. The Applicant followed up with these parties via email in May 2024 following acceptance of the Application, and again with the commencement of Examination. No responses have been received to date.

8. Heritage

Table 8-1: Heritage

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.7.1	Applicant	**Cumulative Effects** In response to written question 1.7.4 [REP3-062] the applicant has focussed on whether significant effects have been identified in the ES. However, could the applicant please provide a response which sets out whether any of the heritage assets listed at table 1 of Appendix C of the Planning Statement [REP3-028] would be subject to cumulative effects from other planned or consented projects? Please also confirm the resultant effect on the level of heritage harm within the terms of table 1 (and the National Planning Policy Framework (NPPF)).	As noted by the Examining Authority, the response to Q1.7.4, as set out in the **Applicant's Response to First Written Questions [REP3-062]**, was provided by the Applicant to clarify the cumulative effects on heritage assets that may be affected by cumulative schemes which was included in **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**. The response already provided took account of the heritage assets listed at Table 1 of Appendix C of the **Planning Statement [REP3-028]** and the Applicant can confirm that there would be less than substantial harm upon these assets resulting from any cumulative effects as a result of other schemes.
Q2.7.2	Applicant	**Historic Landscape Character** The applicant's response to Q1.7.5 [REP3-062] states in part: '*The Scheme will not remove or alter any of these elements of the historic landscape, preserving evidence for how it has been reorganised through time. The predominant character of the postmedieval enclosure and modern landscape and those, more isolated remnants of the earlier, medieval landscape, will survive with blocks of photovoltaic cells and associated infrastructure located within, and respecting, the regular pattern of medium and large sized rectilinear fields, rather than cutting across them.'* The response also refers to the effect of proposed planting on landscape character. However, will the proposed planting within the principal site - particularly along roads which bisect it - have any significant effect on landscape character? Whilst it is noted that the proposed planting is primarily focussed on existing field boundaries, some of these boundaries (for example those adjacent to the roads bisecting the site) do not currently accommodate hedgerows or significant tree planting.	The proposed planting within the Principal Site has been selected to use native species in keeping with the existing hedgerows and trees within the Principal Site. Those new hedgerows proposed along existing field boundaries will retain and enhance the existing pattern of historic fields and the predominant grain of the largely regular, post-medieval enclosure landscape. With respect to the introduction of new hedgerows along roads which bisect the Principal Site, particularly Common Lane and Kexby Road, historic Ordnance Survey maps for the late 19th and early 20th suggest that Kexby Road would have been flanked by hedgerows for much of its length. Common Lane developed from a track extending west from Harpswell to Heapham. The historic mapping suggests that the Heapham section of the lane was flanked by hedgerows which remain extant. The historic maps indicate that the Harpswell section of Common Lane was, at the end of the 19th century, an unfenced track which ran along the edge of a series of regular fields. The fields themselves formed part of the post-medieval enclosure landscape and would have been bounded by linear hedgerows. However, the mapping indicates that sections of the trackway were not fully bounded by hedgerows, with either the north or southern side of the track open to the fields. The resulting open views across these fields has been increased over time through the loss of enclosure field boundaries and the amalgamation of fields during the second half of the 20th century. While the new hedgerows will result in a visual change when travelling along the eastern section of Common Lane and to a lesser degree Kexby Lane, the historic alignment of these lanes and the adjacent historic pattern of regular enclosed fields, some with later boundary loss, which provide the fundamental character of the historic landscape, will not be altered and will still be able to be appreciated. As assessed in **Chapter 8: Cultural Heritage** of the ES **[APP-039]** the historic landscape character of the Principal Site will remain legible and can still be appreciated, as such the proposed planting will not have a significant effect on the historic landscape character of the Principal Site. This is assessed as a low magnitude of impact on historic landscape character zones of medium value, resulting in a long-term minor adverse effect, which is not significant. Further to the above, when considering more general landscape and visual impacts and with reference to the **Applicant's Responses to Local Impact Reports [REP3-061]**, LIR Ref. 5.15, the Applicant notes that

ExQ2	Questions to:	Question:	Applicant's Response:
			aerial mapping indicates the planting of woodland blocks and belts over the past 20 years, north of Common Lane and including a section immediately north of representative viewpoint 2 on Common Lane west of Harpswell (located on **Figure 12-12: Representative LVIA Viewpoint Locations** of the ES **[APP-184]**). Hedgerows are characteristic features of other east-west roads including the A631 (approximately 2 km to the north, Cow Lane (approximately 1 km to the south) and Willingham Road (approximately 3 km to the south). As such, and from a broader landscape perspective, hedges are not considered to be an incongruous feature within the Principal Site.
Q2.7.3	Applicant	**Cumulative Effects (Historic Landscape Character)** The applicant's response to Q1.7.8 [REP3-062] seeks to address the cumulative effects of the Tillbridge Project and other planned and consented developments on historic landscape character. Could the applicant explain why ES Chapter 18 [REP4-015] does not seem to include any reference to such effects (despite an assessment of the effects of the project in isolation being included at ES paragraphs 8.9.434 to 8.9.445)? Please consider NPS EN-1 paragraph 5.9.9.	As the Examining Authority has noted, the Applicant includes an assessment of the effects of the Scheme on the historic landscape character in paragraphs 8.9.434 to paragraph 8.9.445 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]**. The conclusion of this assessment is, following mitigation, that there would be a **long-term minor adverse (not significant) effect** from the construction of the Scheme within the Principal Site, and the change of land-use from intensive agriculture to solar park renewable energy generation. The layout of the photovoltaic panels within the Principal Site preserves the pattern, layout and key boundaries and features of the historic landscape, enabling the grain of the two historic landscape character zones to retain their coherence, time depth and legibility. The resultant effect is reported as non-significant. Paragraph 18.9.3 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** states: *"Significant effects result where the cumulative change results in an erosion to, or total loss of, the ability to understand and appreciate the heritage value of an asset as a result of multiple impacts."* This definition can be used when assessing the cumulative effect of multiple developments upon designated and non-designated heritage assets, and equally to Historic Landscape Character Zones (HLCZ) and Historic Landscape Character Types (HLCT). In the cases of the four solar developments – Cottam Solar Project, Gate Burton Energy Park, West Burton Solar Project and the Tillbridge Solar Project – each project reports on the impacts on the historic landscape character. None of these projects result either individually or cumulatively, in significant effects on the historic landscape character. As stated in the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]**, Q1.7.8 in relation to the construction of the other solar projects: • Cottam Solar Project is assessed overall as no more than a slight adverse effect; • Gate Burton Energy Park is assessed overall as a negligible adverse effect; and • West Burton Solar Project is assessed overall as no more than a slight adverse effect. For each project, embedded or mitigation planting is seen as beneficial and reinforcing the existing landscape character, and for each project the significance of effect on historic landscape remains as not significant. The purpose of EIA is to assess and report on any likely significant effects. NPS EN-1 (Ref 1-1) paragraph 5.9.9 states: *"The applicant should undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA and describe these along with how the mitigation hierarchy has been applied in the ES (see Section 4.3). This should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including*

ExQ2	Questions to:	Question:	Applicant's Response:
			cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project." As the worst-case scenarios have been assessed in each of the projects and the pattern and layout of the historic landscape will be retained (as set out fully in the **Applicant's Response to the Examining Authority's First Written Questions** – Q1.7.8 **[REP3-062]**), there were no cumulative significant effects to assess or report in **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** with regards to Historic Landscape Character.
Archaeology			
Q2.7.4	Applicant	**Mitigation** The applicant's response to Q1.7.11 [REP3-062] appears to imply that the 'additional mitigation' measures set out at ES section 8.10 [APP-039] are to be adopted in circumstances where there is '*discovery of new constraints within the Order limits that were unknown and could not be predicted at the time the ES was prepared*.' However, taking table 8-10 as an example, presumably these assets have been identified as requiring additional mitigation on the basis that embedded mitigation measures are not sufficient alone to reduce the effects of the development upon them. As such, could the applicant please provide a detailed explanation - in relation to all assets listed at section 8.10 - as to why embedded mitigation measures cannot be relied upon, or alternatively why there is a possibility that they could not be relied upon? In providing a response, please refer to the mitigation hierarchy as referenced in NPS EN-1 (paragraph 4.1.5).	The response to Q.1.7.11, as set out in the **Applicant's Responses to First Written Questions [REP3-062]**, was not intended to imply that 'additional mitigation' measures set out at section 8.10 in **Chapter 8: Cultural Heritage** of the ES **[APP-039]** would be adopted in circumstances where there is a '*discovery of new constraints within the Order limits that were unknown and could not be predicted at the time the ES was prepared.'* This potential outcome was simply provided as an example of a situation where embedded mitigation and design measures could not be employed at this stage as the relevant archaeological constraints (if they are present) are not currently known. The Examining Authority is correct that the assets listed in Table 8.10 in **Chapter 8: Cultural Heritage** of the ES **[APP-039]** have been identified as requiring additional mitigation measures, as embedded mitigation or design measures alone will not be sufficient to avoid or reduce the effects of the Scheme. The inclusion of 'additional mitigation' measures is standard EIA practice where embedded mitigation alone is not sufficient to reduce effects to non-significant. The rationale for selection of each of the assets that may experience significant effects without additional mitigation listed in Table 8.10 in **Chapter 8: Cultural Heritage** of the ES **[APP-039]** is set out below. Additional mitigation measures are required to compensate for potential adverse impacts to archaeological assets within the Order limits. Each of the sites for which additional mitigation has been proposed, the archaeological remains present, construction impacts and mitigation measures to be implemented, are set out in the **Archaeological Mitigation Strategy [REP1-025].** Further explanation as to why embedded mitigation or design measures alone will not be sufficient to avoid or reduce the effects of the Scheme, is provided below: a) The undated enclosure [**AEC024**] is located within the Cable Route Corridor north-east of Normanby by Stow. The asset comprises a possible rectilinear enclosure and associated ditches identified during geophysical survey and trial trench evaluation undertaken for the Cottam Solar Project [Cottam 1 Field F4 – **EN010133: APP/C6.3.13.6**]. The enclosure is located on the northern side of the Cable Route Corridor with the indicative cable route alignment running along the southern side of the corridor. This southern cable alignment currently avoids the enclosure but may impact associated archaeological features identified during the Cottam 1 trial trench evaluation. In this instance embedded mitigation in the form of realigning the cable route to avoid the most significant archaeological features will not remove all potential impacts to archaeological remains at this location. In addition, any future changes to the cable alignment may have potential to partially remove or disturb the undated enclosure itself, as assessed in the ES. This location has therefore been identified as requiring additional mitigation measures comprising 'strip map and sample excavation' and is defined as Site 15 in the **Archaeological Mitigation Strategy [REP1-025]**. b) Cropmark and earthwork features [**AEC043**] comprise a group of undated, broad shallow ditches, within the western, alternate Cable Route Corridor option, near Moor Bridge. The archaeological

ExQ2	Questions to:	Question:	Applicant's Response:
			features, identified from LiDAR imagery assessed for the Cottam Solar Project **[EN010133: APP/C6.3.13.4]**, may represent a rectilinear enclosure and former field boundary. The cropmark and earthwork features extend across almost the full width of the Order limits meaning that, should the western alternate cable route option be required, topsoil stripping to create the 40m wide construction corridor and open cable trench would not be able to avoid or reduce the potential partial loss or disturbance of the asset. Consequently, additional mitigation measures in the form of 'strip map and sample excavation' would be required to mitigate adverse effects on the asset. The additional mitigation is defined as Site 14 in the **Archaeological Mitigation Strategy [REP1-025]**. c) The Winter Camp of the Viking Great Army at Torksey [**MLI125067**] is located to the south-west of the village of Marton on a bluff overlooking the east bank of the River Trent. The Cable Route Corridor is located approximately 120m to the north of the mapped extent of the asset as recorded by the Lincolnshire Historic Environment Record. Access to the Cable Route Corridor from the local road network is limited. A northerly access via Trent Port Road, Marton cannot be used as part of the access route is a public footpath along a flood defence embankment managed by the Environment Agency. Access to the Cable Route Corridor is therefore limited to an existing farm track extending from the A156 High Street. The Order limits incorporate this access route, Cable Route Corridor Access 6, which extends across the north-east corner of the Winter Camp of the Viking Great Army at Torksey [**MLI125067**], will be shared with the Gate Burton Energy Park, minimising the land required for construction and reducing potential impacts to the asset. Geophysical Survey undertaken along the northern side of Cable Route Access 6 (Field 113) for the Gate Burton Energy Park [**EN010131/APP/3.3**] did not identify any anomalies of archaeological or possible archaeological origin but did recorded evidence for north-south aligned medieval or post-medieval ridge and furrow cultivation extending into the Order Limits. The assessment presented in the **Chapter 8: Cultural Heritage** of the ES **[APP-039]** assessed a worst case where topsoil stripping of a 6m wide access corridor was required for the installation of Cable Route Corridor Access 6, resulting in adverse effects to the asset. At this location, embedded mitigation measures cannot be relied upon to avoid or reduce the adverse effects arising from the construction of the Scheme. Consequently, additional mitigation measures comprising 'strip map and sample excavation' would be required to mitigate adverse effects on the asset. The additional mitigation is defined as Site 25 in the **Archaeological Mitigation Strategy [REP1-025]**. d) The Iron Age or Romano-British enclosure complex [**AEC031**; **MNT15983**] is located within the Cable Route Corridor to the west of the River Trent. The asset comprises cropmarks indicative of a large curvilinear enclosure measuring approximately 180m long and 100m wide, within which were small circular enclosures, possibly roundhouses, and a linear feature, possibly a trackway. Trial trench evaluation undertaken for the Gate Burton Energy Park **[EN010131/APP/3.3]** confirmed that archaeological features extend across the full width of the Cable Route Corridor, with the cropmark evidence extending beyond the Order limits across the fields through which the Cable Route Corridor is located. In this instance, embedded mitigation measures or design solutions could not be implemented to avoid or reduce all adverse effects arising from topsoil stripping for the 40m wide construction corridor. As a result, additional mitigation measures comprising 'strip map and sample excavation' would be required to mitigate adverse effects on the asset. The additional mitigation is defined as Site 28 in the **Archaeological Mitigation Strategy [REP1-025]**. e) An extensive complex of cropmarks has been recorded in fields to the west of the village of Cottam [**MNT4983**; **AEC032** and **AEC033**]. Geophysical survey [**EN010131/APP/3.3**] and trial trench evaluation [**EN010131/APP/3.3**], undertaken for the Gate Burton Energy Park, confirmed that the cropmarks represent a series of Romano-British ditches and gullies defining rectilinear enclosures, at least one ring gully, pits and a possible waterhole dated 1st-4th centuries AD [**AEC032**]. Further Romano-British ditches, representing a series of enclosures, trackways and field systems [**AEC033**]

ExQ2	Questions to:	Question:	Applicant's Response:
			were also identified to the south of the railway line that serves the former Cottam Power Station. The archaeological features extend across the full width of the Cable Route Corridor and across fields adjacent to the Order limits. The horizontal directional drilling, required to install the cables beneath the railway line, provide an opportunity for localised embedded mitigation that avoids part of the assets (Site 29 in the **Archaeological Mitigation Strategy [REP1-025]**). However, beyond Site 29 there is no opportunity for the embedded mitigation measures to avoid or reduce the adverse effects arising from topsoil stripping required for the 40m wide construction corridor. Additional mitigation measures comprising 'strip map and sample excavation' would therefore be required to mitigate adverse effects on these assets. The additional mitigation is defined as Site 30 in the **Archaeological Mitigation Strategy [REP1-025]**. f) A small Romano-British settlement [**AEC035**] has been identified by geophysical survey [**EN010131/APP/3.3**] and trial trench evaluation [**EN010131/APP/3.3**] undertaken for the Gate Burton Energy Park. The settlement remains comprise a series of rectilinear enclosures and linear ditches located on the northern side of the Cable Route Corridor. The indicative cable route passes through the Romano-British settlement remains resulting in the partial loss or disturbance of the asset. In this instance, embedded mitigation, in the form of routing the 40m wide construction corridor away from the archaeological features, would not fully avoid or reduce the impacts on the archaeological features at this location. Additional mitigation measures comprising 'strip map and sample excavation' are therefore required to mitigate adverse effects to this asset. The additional mitigation is defined as Site 31 in the **Archaeological Mitigation Strategy [REP1-025]**.
Q2.7.5	Applicant	'**Less than substantial harm'** In response to Q1.7.6 [REP3-062] the applicant states in part: '*The level of harm assesses the impact taking into account embedded mitigation but excludes mitigation which does not reduce the harm. No designated assets have been identified as experiencing a significant adverse effect in Chapter 8: Cultural Heritage of the ES [APP-039], therefore, any harm caused by the proposals is considered to be less than substantial.'* However, ES paragraph 8.9.417 [APP-039] - in addressing the effect on the Winter Camp of the Viking Great Army at Torksey prior to mitigation - concludes as follows: *'The asset is considered to be of high value and would experience a permanent low magnitude of impact. This would result in a moderate adverse significance of effect, which is significant.'* Whilst it is noted that the applicant asserts that the level of harm does take into account embedded mitigation, in this instance there is additional mitigation proposed as set out at ES Chapter 8, section 8.10. Given that ES paragraph 8.9.415 identifies that the site has the potential to be of national importance, could the applicant please expand on the reasoning provided at Appendix C of the Planning Statement [REP3-028] for concluding 'less than substantial' harm to this asset?	The Winter Camp of the Viking Great Army at Torksey is a recorded non-designated heritage asset (MLI125067) on the Lincolnshire Historic Environment Record. As noted in paragraph 8.9.415 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]:** *'The extensive archaeological remains and artefactual evidence associated with the winter camp, although not protected through designation as a scheduled monument, have considerable archaeological and historic interest and forms one of a small number of historically documented sites able to provide evidence for how the Viking army functioned, moved through the landscape, the economy, lifestyles and material culture of those in the army, in addition to early medieval settlement and industrial activity. The value of the asset is derived from its considerable archaeological and historic interest, which have the potential to be of national importance, it is therefore considered to be of high value'.* The Planning Practice Guidance (2019) (Ref 1-8) paragraph 041 identifies two categories of non-designated heritage assets of archaeological interest: (1) those that are demonstrably of equivalent significance to scheduled monuments and are therefore considered subject to the same policies as those for designated heritage assets (National Planning Policy Framework footnote 75 (Ref 1-9)). These are of three types specifically, those that have yet to be formally assessed for designation, those that have been assessed as being nationally important and therefore, capable of designation, but which the Secretary of State for Culture, Media and Sport has exercised his/her discretion not to designate, and those that are incapable of being designated by virtue of being outside the scope of the Ancient Monuments and Archaeological Areas Act 1979 because of their physical nature, and (2) other non-designated heritage assets of archaeological interest. The Winter Camp of the Viking Great Army at Torksey falls within the first of these two categories, being a non-designated asset which is regarded for the purposes of assessment equivalent to a designated scheduled monument, due to its particular sensitivities of potential national importance.

ExQ2	Questions to:	Question:	Applicant's Response:
			As the Examining Authority has noted, paragraph 8.9.417 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]** concludes that the asset would experience a moderate adverse effect that would be significant, taking into account embedded mitigation and prior to additional mitigation. In terms of the conclusion in **Appendix C: Heritage Harm Statement** of the **Planning Statement [REP3-028]**, that the Scheme would result in less than substantial harm to the significance of the Torksey Viking Winter Camp [MLI125067], paragraph 018 of The Planning Practice Guidance (2019) emphasises that substantial harm is a high test and that it is the degree of harm to the asset's significance rather than the scale of the development which needs to be assessed. The PPG also notes that '*works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all.*' Whilst the works have the potential to disturb or remove possible surviving archaeological remains within the Viking Winter Camp [MLI125067], the proposed temporary access road would impact a relatively small section of the overall 26 ha site. Even though the works would cause harm, the harm would not be 'substantial', having regard to the scale of the harm or loss compared to the remainder of the asset Torksey Viking Winter Camp [MLI125067] which would remain preserved and intact, not impacted by the Scheme, and experiencing no loss or change. In this instance, the impact to the value of the Torksey Viking Winter Camp [MLI125067] is assessed as 'Low' in paragraph 8.9.417 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]** and this equates with causing less than substantial harm. Therefore, the conclusion in the Heritage Harm Statement was that there would be 'less than substantial harm' to this asset, as the asset's significance or high value would not be significantly lost or altered.
Q2.7.6	Applicant and LCC	**Viking Winter Camp** The ExA would appreciate a comprehensive response to the following questions in a separate document: The ExA notes that, in its response to the ExAs First Written Question 1,7,13, Lincolnshire County Council stated: *'LCC is not satisfied that this will cause less than substantial harm. There is no evidence put forward to support such a statement. Torksey Viking Winter Camp is a unique and incredibly important historic and archaeological site and any damage whatsoever to it is substantial harm. The nature of the site is such that there is potential for archaeology of national and even international importance may be found and impacted anywhere across the site.'* Could the applicant please provide response to the following questions: A) Please provide an explanation as to why the Winter Camp of the Viking Great Army - as referred to in the Planning Statement Appendix C paragraph 5.1.4 [REP3-028] – cannot be avoided by the development? And if it can please explain how embedded mitigation measures achieve this, noting NPS EN-1 paragraph 5.9.16? B) Please could the applicant provide a plan showing the location and extent of this archaeological site in relation to the order limit boundary?	The Applicant's response to Q2.7.6 is provided within **Appendix E** of this document.

ExQ2	Questions to:	Question:	Applicant's Response:

C) Could the applicant please confirm the cumulative effect of the proposed development along with Cottam and Gate Burton, bearing in mind the applicant's response to Q1.1.3 [REP3-062] and the assertion that there is a need '*to retain some minor flexibility within the Order limits to ensure that no one project prevents another coming forward should all DCOs be made'*?

- Could the applicant please confirm whether it is aware of this issue being addressed in relation to any of the previous NSIPs (such as Gate Burton or Cottam). If it has, could the applicant confirm what relevance this has to the same matter being considered in relation to this current application?
- Please incorporate a response to ExA written question Q2.7.5.
- Could the applicant please set out the implications for the planning balance to be applied in determining this application in a scenario where substantial harm, as asserted by LCC, is identified to the heritage asset (taking into account NPS EN-1 paragraph 5.9.6)?
- Please could the applicant confirm exactly what survey work has been undertaken in relation to this archaeological site and explain how it has informed the siting of the proposed cable route with particular regard to the 'mitigation hierarchy' referred to in NPS EN-1?

Could LCC please confirm the following:

D) What is the rationale for the conclusion that 'substantial harm' would arise and within what terms is such harm alleged (the terms of the NPPF for example)?

- Please confirm why this matter has not been raised by LCC in previous responses?

E) Please confirm what effect LCC considers this to have on the planning balance to be applied, with specific reference to NPS EN-1 paragraphs 4.2.17 and 5.9.33.

Whilst the Council asserts that the heritage asset is potentially of national or even international importance, please confirm whether the lack of a statutory designation has any bearing on the planning balance judgement to be applied and the weight to be afforded to any alleged harm?

9. Human health, safety, accidents and major incidents

Table 9-1: Human health, safety, accidents and major incidents

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.8.1	Applicant	**Local climate changes** Can the applicant advise of the scale of any potential local climate change to the residents adjacent to the proposed development due to the change in surface albedo, reflectance and absorption and how any change might manifest such as increase in local air temperatures due to heat island effects? The applicant makes reference [REP2-007] to these effects being slight and local but please can this be elaborated upon?	The Applicant provided the requested information as a post-hearing note provided within the **Written Summary of Applicant's Oral Submissions at the Issue Specific Hearing 3 (ISH3) [REP4-049]**, in response to the ExA's questions on this matter at ISH3. This is provided below for ease of reference: *"There is currently no consensus amongst the scientific literature regarding the effect of solar panels on the localised climate. Published studies by Barron-Gafford, G., Minor, R., Allen, N. et al. (The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures) show a noticeable increase in local temperatures, with the centre of a large solar farm being up to 4°C higher than ambient conditions. However, an analysis from Fthenakis & Yu (Ref. 1-9) has suggested that this heating effect is very localised, reducing to under 0.5 °C with 5 m of elevation and 300 m of horizontal distance.* *Further to this, research by Masson et al. (Ref. 1-10) suggests that solar farm installations are effective in reducing both global and local temperatures, with evidence of a localised temperature decrease related to the solar installation.* *As demonstrated by the above studies there is no unified agreement as to the localised climate consequences associated with the installation of large-scale solar farms. While it is possible there will be temperature increases at an extremely localised scale, this is not expected to have a wider significant effect."*
Q2.8.2	Applicant	**Fire Safety** Discussions were held at ISH3 regarding the probability of fire taking place within the battery storage systems at the site over the life of the development and the likely scale and magnitude of such an incident, the potential local impacts and fire fighting response. Please could the Applicant develop this response to allow the ExA to clearly understand what is the probability and likelihood of fire taking place, such as an annual probability of a fire at the site and the typical incident response this might trigger?	**Probability / likelihood of BESS fires** The Applicant provided further clarity on the probability of battery fires to the questions discussed at ISH3 within its **Written Summary of Applicant's Oral Submissions at ISH3 [REP4-049]** at pages 8 - 12. A definitive probability of BESS failure rates / fires cannot be provided based on rates of UK or international BESS fires to date, because most BESS design failures included in the EPRI database are not representative of current safety standards, certifications, testing requirements and do not integrate the latest control, detection, protection, and mitigation design features which minimise the probability and consequences of BESS failure. The data provided should only be used to understand that BESS failure incidents are significantly declining in relation to the exponential increase in integration of global BESS projects. For example, BESS fires involving battery systems manufactured in South Korea significantly skew the global failure data. The Scheme has committed that air cooled, pouch cell systems will not be considered for the Scheme for safety reasons, and it is these battery systems that were involved in 31 from 91 BESS failure events listed in the EPRI database (Ref 1-10). In 31 BESS failures recorded in South Korea between 2017-21, these systems were integrated in 18 (58%) BESS failures but only accounted for 30% of total BESS systems installed (Ref 1-11). Confirmed global BESS failures listed on the EPRI database (outside of South Korea) integrating these battery systems are 12 significant failure incidents at facilities in Drogenbos (Belgium), McMicken (AZ, USA), Carnegie Road Liverpool, 3 failures at Moss Landing (CA, USA), and 2 failures at Valley Center (CA, USA). Therefore, relying on international failure rates as a representative

ExQ2	Questions to:	Question:	Applicant's Response:

probability would fail to take into account that the Scheme is committed to avoiding a BESS technology which has been behind a large number of these previous failures.

However, the Layer of Protection Analysis (LOPA) data discussed at ISH3 is considered representative of the risk of failure for current leading LFP liquid cooled, prismatic cell BESS designs and is therefore considered a valid method of assessing BESS failure probability for the Scheme. The generic design discussed in that data reflected an energy dense 5MWh LFP BESS enclosure containing: 104 cells per module, 8 modules per battery rack (832 cells per rack), 6 racks per BESS enclosure (4,992 cells per BESS).

The LOPA analysis predicted the following failure frequency of 3.3×10^{-7} per year per enclosure (approximately once every 3.1 million years). Assuming a 2GWh site such as the Scheme would incorporate 400 x 5MWh BESS enclosures integrating 2,400 battery racks the likelihood of a single BESS enclosure failure is $3.3 \times 10^{-7} \times 400 = 1.3 \times 10^{-4}$ per year (approximately once every 7,700 years).

The potential cell venting (i.e. fire/incident) scenarios considered in the LOPA analysis can be summarised using definitions and data from the DNV GL publication 'Technical Reference for Li-ion Battery Explosion Risk and Fire Suppression' (Ref 1-12). There may be multiple threats which may initiate (or cause) an individual cell to vent which can escalate either as flammable gas venting or a burning (from the ignition of flammable vent gases) event which can propagate to other cells in the module and ultimately propagate to the complete unit, rack or compartment (depending on the BESS design). Each threat typically occurs at a defined frequency (the initiating frequency) which is progressively reduced by a number of barriers or Independent Protection Layers (IPL) until the final outcome is realised at the end frequency. The DNV GL report provides a list of potential threats or causes of cell venting with proposed frequencies based on industry data. These include:

- Internal short circuit in cell, due to manufacturing error or physical damage during transport, maintenance etc.
- BMS failure e.g. controlling current limits, leading to overcharge, discharge or overcurrent.
- Converter failure leading to overcharge, discharge or overcurrent.
- Incorrect communication between BMS/Converter/PMS leading to overcharge, discharge or overcurrent.
- Battery enclosure or module cooling system, leading to battery system operating outside design operating temperature range, both above (overheating) and below (excessive cold). Overheating will drive degradation and can lead to cell internal temperature rises, potentially causing a thermal event. Excessive cold can lead to lithium plating or formation of dendrites, potentially causing hazardous conditions in cells.
- Failure of electrical equipment (not battery system) leading to rapid charge or discharge and resulting in potential heat abuse conditions that can trigger a thermal runaway event.
- Physical/mechanical impact to Battery System.
- Water Ingress in BESS enclosure from pipes, enclosure leak etc.
- External Fire – Wildfire, site fire involving combustible materials, electrical equipment outside of battery space etc., i.e. not caused by battery system, but posing a hazard when exposing the battery system, whose presence may worsen the fire consequences.
- A full battery module failure involving all cells, i.e. uncontrolled cycling, discharge or arcing.

ExQ2	Questions to:	Question:	Applicant's Response:

The DNV GL report also provides a comprehensive list of Independent Protection Layers (barriers/safeguards typically present in a battery system) of potential mitigation or controls against cell venting with proposed probabilities of failure based on industry data. This has been considered in the preparation of the **Framework Battery Safety Management Plan (FBSMP) [REP4-026]**.

In respect of the Scheme's safety mechanisms and mitigation in place to ensure these risks remain minimised, the following points are also noted:

- The expected BESS operating lifecycle of the generic LFP liquid cooled, prismatic cell BESS design discussed at ISH3 is currently 12-20 years, meaning that a minimum of 3-4 different BESS designs would likely be deployed over the lifecycle of the Scheme (60 years) and failure rate data will change and reduce with each new system integrated (noting that the ES, on a conservative basis assumes replacement every 10 years, meaning 6 different BESS designs would be deployed).
- Rigorous BESS design, site specific risk assessments and consequence modelling are required to be conducted at the detailed design stage under Section 6 of the **FBSMP [REP4-026]** for the Scheme to inform all necessary hazard and risk analysis studies and assist in the development of comprehensive Risk Management and Emergency Response Plans together with Lincolnshire Fire & Rescue (LFR).
- Section 7.5 (Early Intervention of Thermal Runaway Prevention) of the **FBSMP [REP4-026]** details the Applicant's commitment to new key safety standards, together with essential monitoring and control features which will likely further reduce the probability of a BESS failure occurring. Additionally, the **FBSMP [REP4-026]** (paragraph 5.3.4) stipulates the Applicant's commitments to key applicable BESS safety standards and objectives listed in Table 5-1 which will ensure that BESS failure risks are minimised.

The Applicant considers the low probability set out in the LOPA analysis, and the further risk management proposed by the Scheme provide confidence that under day-to-day operation there is a low risk of a BESS failure incident, and in the event of an incident the credible hazards are understood and have been evaluated both at the illustrative and detailed design stages to demonstrate that the risk to site operatives, first responders, and the local population remains very low.

Incident response approach

Despite the above conclusion, in the unlikely scenario that an incident did occur, Emergency Planning requirements (Risk Management and ERP) based on NFCC guidance (Ref 1-13) are defined in Section 6.2 of the **FBSMP [REP4-026]**. The Risk Management content ensures that LFR are fully aware of all risks and hazards on site and will be able to operate safely and efficiently if a BESS failure incident did occur.

The Emergency Response Plan (ERP) minimum content requirements listed in the **FBSMP [REP4-026]** are defined by current NFCC (Ref 1-13) and NFPA 855 guidance (Ref 1-14). Incident response protocols for facility staff and first responders are established through training before operations commence with annual refresher training to ensure firefighters are comfortable with the latest BESS incident response, particularly the 'let it burn' strategy. On site training allows for familiarity with site access routes and equipment layout, allowing for safe and efficient incident response.

There are several key requirements for the ERP to achieve, these include safe shutdown and isolation of equipment, procedures to be followed in case of a BESS fire or deflagration and contact information for subject matter experts who can provide expert BESS safety advice for LFR. The ERP would be maintained

ExQ2	Questions to:	Question:	Applicant's Response:
			and reviewed regularly throughout the operating life of the BESS system. Incident response strategy will be derived to ensure: • There are no significant life and safety threats to on site personnel and first responders' when in close proximity to a BESS-Solar Station Compound i.e. avoid a smoke plume even when wearing full PPE, establish a safe blast exclusion zone (30.5m from the BESS enclosure), etc. • Monitor BESS BMS data and Fire Control Panels to establish that a fire will be contained to the single BESS enclosure without LFR intervention. • If boundary cooling of equipment is required, firefighting water will be safely contained and tested. • Monitoring of site boundaries downwind of the prevailing wind direction to ensure fire plume emissions do not significantly impact or disrupt the local community i.e. visibility impacts on roads, ensure toxic emission impacts on PROW or any sensitive receptors within 1 km of the BESS fire are at safe levels, establish a site boundary cordon (if necessary) to ensure members of the public do not stand within a smoke plume, etc. • Ensure relevant alerts are issued and actions are taken, i.e. highways authority, local community alerts, etc. The Safety Standards and Objectives listed in the **FBSMP [REP4-026]** (Section 5.3) are achieved through the ERP incident response protocols.
Q2.8.3	Applicant LCC, LRF	**Community Warnings** At ISH2 the Applicant advised that the Local Resilience Forum (LRF) would be used to help communicate warnings to the local community about any risks from any incident developing at the site. LCC advised that to their knowledge the LRF had not been stood up for any major fires historically in Lincolnshire and the Lincolnshire Fire and Rescue Service would tend to lead and fully coordinate the response calling on other Category 1 and 2 responders under the Civil Contingencies Act as and when required. Given this advice can the Applicant please advise how the community would be kept informed of any risk developing at the site and any preparations to take should an incident arise at the site?	As noted above, the **FBSMP [REP4-026]** at paragraph 8.1.2 requires the Applicant to prepare an Emergency Response Plan. These plans will be developed in consultation LFR and other local emergency services to include the adequate provision of firefighting equipment onsite and ensure that fire, smoke, and any release of toxic gases from a thermal runaway incident does not significantly affect site operatives, first responders, and the local community. Paragraph 6.2.2 specifically defines the minimum information and incident management details that will be contained in an Emergency Response Plan (ERP). As part of this ERP, the Applicant would require the BESS operator to be specifically responsible for coordinating with the 24-7 BESS monitoring centre, LFR, additional first / second responders, and any BESS specialist SME's that are involved in incident response. The Applicant expects that LCC and LFR would finalise any local community alert protocols they would be responsible for when the Emergency Response Plan was drafted (pre-operation after viewing final site specific and BESS system risk analysis and consequence modelling results), and these would be fully agreed at the time of drafting. The site operator will ensure that monitoring of site boundaries is conducted downwind of the prevailing wind direction to ensure fire plume emissions do not significantly impact or disrupt the local community i.e. visibility impacts on roads, ensure toxic emission impacts on PROW or any sensitive receptors within 1 km of the BESS fire are at safe levels, establish a site boundary cordon (if necessary) to ensure members of the public do not stand within a smoke plume, etc.
Q2.8.4	Applicant, LCC	**Fire fighting access and turning** Lincolnshire Fire and Rescue Service have expressed a view to having alternative routes of access to the site for fire fighting to accommodate differing prevailing wind directions during and incidents and associated plumes. Can the Applicant advise how this is being addressed and also how	The current Scheme layout integrates multiple site emergency access points for LFR (including the four Principal Site access points) to account for any wind direction impacts on a smoke plume. The access roads will include passing bays at regular intervals, ensuring safe and efficient two-way vehicle movements. Final detail of this will be provided at the detailed design stage. The turning radius of the roads within the illustrative layout has been designed at this time with a minimum of 12.5 metres, which is compatible with the manoeuvrability requirements of LFR vehicles according to the details provided to the Applicant.

ExQ2	Questions to:	Question:	Applicant's Response:
		adequate turning spaces and access for fire vehicles will be accommodated as per the requests?	Additionally, vehicle tracking will be undertaken during the detailed design stage to confirm and refine the adequacy of the access routes and turning areas. Section 7.3 of the **FBSMP [REP4-026]** clearly states final designs are required to be in full alignment with current NFCC guidance (Ref 1-13) for BESS site access requirements. The Applicant is continuing engagement with LFR on details of their preferred layout for LFR vehicle access around the indicative BESS-Solar Station Compounds. Paragraph 7.3.2 of the **FBSMP [REP4-026]** requires the final Emergency Access Plans to be agreed with LFR.

10. Landscape and visual impact

Table 10-1: Landscape and visual impact

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.9.1	LCC and 7000 Acres	**Sequential views** Could LCC and 7000 Acres please confirm whether they agree or disagree with the applicant's assertions on pages 15 to 16 of its Written Summary of Oral Submissions to the ISH3 [REP4-049] and in particular, the summary of professional judgement provided in relation to the likelihood of certain routes being used by higher-sensitivity recreational users (a-d)?	No response from Applicant required.
Q2.9.2	Applicant	**Masterplan** The applicant's Written Summary of Oral Submissions at the ISH3 [REP4-049] outlines in part that: '*The applicant agreed to review the Framework LEMP to clarify that compliance with the Indicative Landscape Masterplan is secured through this document. Whilst the Framework LEMP [REP3-043] referred to the Indicative Landscape Masterplans, the applicant has updated the Framework LEMP [EN010142/APP/7.17(Rev04)] at Deadline 4 to clarify the commitment*' Whilst it is noted that the applicant has updated the FLEMP [REP4-0029], the Framework Masterplan is still not appended, whereas it was included in previous versions of the FLEMP. Please could the applicant re-insert this as an appendix and if not, explain why not? Draft DCO Requirement 7 states that *'the landscape and ecological management plan must be substantially in accordance with the framework landscape and ecological management plan*'. However, there is no equivalent requirement that the masterplan shall be in accordance with the indicative masterplan. Similarly, there is no requirement that a masterplan is even provided prior to commencement of development.	The Applicant had previously separated out the Indicative Landscape Masterplan in response to a request from the Planning Inspectorate to keep the Indicative Landscape Masterplan separate from the **Framework LEMP [EN010142/APP/7.5(Rev05)]**, as set out within the Section 51 Advice dated 8 May 2024 (**Section 55 Checklist [PD-002]**). However, in response to the ExA's question on this matter, the Applicant has updated the **Framework LEMP [EN010142/APP/7.17(Rev05)]** to now include the Indicative Landscape Masterplan as **Appendix A**. As the Indicative Landscape Masterplan forms part of the **Framework LEMP [EN010142/APP/7.17(Rev05)]**, any detailed masterplan produced will be required to be substantially in accordance with the Indicative Landscape Masterplan under Requirement 7 of the **draft DCO [EN010142/APP/3.1(Rev06)]**.
Q2.9.3	Applicant	**AGLV** Could the applicant please respond to WLDCs assertion [REP4-053] that: '*WLDC consider that this unacceptable harm could be reduced significantly through a scheme design that recognised the sensitivity and importance of The Cliff, and avoided the imposition of infrastructure in the transitional area and the designated AGLV itself. Removing infrastructure from this eastern area of the scheme would serve to*	The Applicant considers that the sensitivity and importance of the Cliff and AGLV have been incorporated into the design of the Scheme through early constraints and risk analysis, the subsequent preparation of more detailed Local Landscape Character Areas (LLCA) that capture the baseline variations and transitions along the Cliff at a greater detail and granularity than the West Lindsey Landscape Character Assessment; and design development that responds and reduces impacts particularly on the more sensitive landscapes. These include transitional areas around Harpswell that are not wholly within the AGLV. The Applicant maintains that the effects on LLCA that relate to the Cliff, as stated in **Chapter 12: Landscape and Visual Amenity** of the ES **[REP4-013]**, are not significant at the operational Year 15 stage. Direct landscape impacts within the AGLV will only arise through works relating to an upgraded section of an existing farm

ExQ2	Questions to:	Question:	Applicant's Response:
		significantly minimise landscape character impacts whilst maintaining an NSIP scale energy generating station project and the benefits it would bring in terms of the generation of electricity from a renewable source.'?	track for construction access. The remainder of the Scheme along the Cliff scarp slope and the associated LLCA 2A Lincoln Cliff Open Farmland is proposed for biodiversity enhancement or will remain undeveloped as grassland within Sensitive Archaeological Sites. The removal of infrastructure from the eastern area along the Cliff would therefore be disproportionate and unnecessary, as it would not result in any reduction in significant landscape effects for such areas stated in **Chapter 12: Landscape and Visual Amenity** of the ES **[REP4-013]**.
Q2.9.4	Applicant	**Cumulative Landscape Character effects** WLDC's Summary of representations made during ISH3 [REP4-053] states in part: '*In determining the application, WLDC encourages the impacts of not just the conclusions reached in the ES to be taken into account. The cumulative landscape character impacts must be considered as a kinetic and sequential basis, with an appreciation of the scale of the change across the district. This requires a careful awareness of how the projects link together to create the significant adverse impacts. Despite the discussion regarding the 'sequential' experience, WLDC notes that this matter is not addressed or considered explicitly in the ES (chapter 12 only refers to 'sequential' in response to consultation representations).'* Could the applicant please provide a response?	**Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**) acknowledges that a significant cumulative landscape effect will arise on LLCA 3A Till Vale at the construction, operation (Year 1) and operation (Year 15) stages. This predominantly reflects the combination of the Scheme and the Cottam Solar Project extending the presence and influence of solar infrastructure at Year 15 along an approximately 15 km north-south corridor within the LLCA and areas with corresponding character. The Applicant considers that these reflect the scale of change at a district level. The Applicant has identified representative viewpoints for which significant cumulative visual effects will arise, and where these may reflect sequential views, in **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**. Further to this, the Applicant provided a summary on pages 15 and 16 of the **Written Summary of Applicant's Oral Submissions at the ISH3 [REP4-049]** of likely sequential cumulative views in relation to other DCO schemes, with reference to the layout, relationship, likelihood of journeys and receptor sensitivity based on professional judgment. The Applicant acknowledges that sequential views of the solar DCO schemes will be available, but that a quantitative evaluation of such views across the District and where quantitative evidence of journey scenarios cannot realistically be determined. Thus potential effects from sequential views can only be made through professional judgement; and furthermore such an exercise would need to be proportionate.
Q2.9.5	Applicant	**Sequential effects** WLDC's Summary of representations made during ISH3 [REP4-053] states in part: '*To ensure that a thorough understanding of the large scale cumulative visual effects are applied to policy, WLDC consider that an assessment based upon travelling through the landscape must be carried out. To understand the impacts, consideration of how they will be experienced from traveling north at Blyton through the projects to Saxilby in the south, and Marton in the west to The Cliff in the east is required. It must also be acknowledged that the solar generating station projects will be experienced at points along all major highways in the district alongside minor roads that pass nearby/through them. There will be limited relief from experiencing the visual impacts of the projects cumulative across the West Lindsey District, which WLDC contends is an exceptional circumstance that is not foreseen as an inherent impact in NPS policy.*' Could the applicant please provide a response?	The Applicant refers to the response provided in Q2.9.4 above. The locations described by WLDC are considered by the Applicant to equate to the area within which significant cumulative landscape effects are reported in **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**. Whilst the Applicant accepts that sequential views will be available, it does not consider that there will 'limited relief' from visual impacts, particularly at Year 15 when mitigation planting will be established. Broadly, receptors on 'major highways' are considered to be of lower sensitivity, for which the most extensive section where views will be experienced is the A631 and where significant visual effects in relation to the Scheme have been reported for the construction and operational Year 1 phases in **Chapter 12: Landscape and Visual Amenity** of the ES **[REP4-013]**. Aside from the A631, the only other 'major highway' adjacent to the solar DCO schemes is the A1500, where views of the West Burton Solar Project will be expected, but these two routes are an approximately 15 to 20-minute driving time apart. The Applicant has identified significant cumulative visual effects for representative viewpoints along the intervening Middle Street, but these are considered to be limited in number and reduced by Year 15. The alternative north-south oriented B1241 is adjacent to the Cottam Solar Project at Normanby by Stow, but only for an approximately 270 m section, where there is an existing hedgerow. The Applicant also acknowledges that views will be available for rural routes that attract more recreational receptors, but the largely east-west orientation of these is such that travel times between views will be longer. This is reflected in the summary provided in the post-hearing note on pages 15 and 16 of the **Written Summary of Applicant's Oral Submissions at the ISH3 [REP4-049]**. The Applicant's **Planning Statement [REP3-027]** sets out how the Scheme is in accordance with the relevant national policy statements and important and relevant matters, and from this considers the Scheme

ExQ2	Questions to:	Question:	Applicant's Response:
			in the overall planning balance. The **Applicant's Comments on Interested Parties Submissions for First Written Questions at Deadline 3 [REP4-048]** sets out how the residual significant effects of the Scheme in relation to landscape and visual matters need to be balanced against the urgent need for the Scheme, which must be given substantial weight in the planning balance with this outweighing the localised landscape and visual effects. The Applicant's view is that the adverse landscape and visual effects are outweighed, including when considered cumulatively with other developments, and that there is not necessarily a need to apply the CNP presumption under NPS EN-1 as a result. The **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]** (pages 4 to14) also responds in detail on this point. The Applicant confirms that the landscape and visual effects are outweighed by the Scheme's substantial benefits, including when considering cumulative impacts. This position is then further strengthened when the presumption under NPS EN-1 paragraphs 4.1.7/4.2.15 is applied, with the Scheme being CNP infrastructure and as such outweighing any residual effects "in all but the most exceptional cases". The residual harm associated with the Scheme is far from the types of effects that may be in the realm of exceptional circumstances, let alone "the most" exceptional circumstances (examples of which are provided in EN-1), such that the starting point of the Scheme's benefits outweighing any residual effects is not displaced.
Q2.9.6	Applicant	**Residential Amenity** WLDC's Summary of representations made during ISH3 [REP4-053] states in part: '*WLDC's position is that there is no assessment within the application documents of the impact of the project (individually and cumulative) in terms of impacts upon residential amenity. WLDC would expect to see a separate assessment where, typically, an LVIA professional and a planning professional would carry out a joint assessment to provide an assessment against policy. Other impacts such as noise, vibration, traffic and glint and glare would also be included to provide a rounded judgement of acceptability. During the hearing there was a discussion around the necessity of a Residential Impact Assessment. The applicant contended that one was not required with the ES providing the impacts required to inform a robust decision. WLDC note, however, that the Gate Burton Energy Park NSIP application did carry out a Residential Visual Amenity Survey, which was helpful in providing an assessment on a 'property-by-property' basis and applying impacts to established 'tests' of acceptability. WLDC also noted the discussion regarding the impact upon what is understood to be 'financially involved' properties. Regardless of whether a current property owner is to benefit from the scheme or not, the assessment of impacts upon properties remain the same and residential amenity should be considered equally in the public interest.'* Please could the applicant provide a response?	An assessment of impacts on the amenity of residential properties, local businesses, and users of open space has been provided within **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**. This assessment reviews the potential for noise, air quality, visual and traffic effects arising from the Scheme, prior to determining the impact on the amenity of residents, businesses, and users of open spaces within the study area. An assessment against policy is provided within the **Planning Statement** (refer to Section 6.14) **[REP3-027]**. No significant adverse effects with regards to residential amenity have been identified. The Applicant maintains that the assessment of visual effects and the use of representative viewpoints in **Chapter 12: Landscape and Visual Amenity** of the ES **[REP4-013]** is robust and proportionate in relation to the consideration of views from properties. The Applicant refers to the **Statement of Common Ground [EN010142/APP/9.9(Rev02)]** where LCC state they are comfortable with the absence of a Residential Visual Amenity Assessment (RVAA). The Applicant's justification for the absence of an RVAA is provided in **Chapter 12: Landscape and Visual** of the ES **[REP4-013]** and is referenced in the **Written Summary of the Applicant's Oral Submission at ISH3 [REP4-049]** at Agenda Item 3b on page 9 and 10. The Applicant is aware that a Residential Visual Amenity Survey was undertaken for the Gate Burton Energy Park [Gate Burton document reference APP-150]. This document concluded that no significant effects were found on residential receptors, the RVAA threshold was not reached and thus a full RVAA was not carried out. Given the characteristics of the Gate Burton Energy Park and residential properties surveyed, along with distance to infrastructure elements, are broadly similar to those associated with the Scheme; the Applicant considers that the findings would be broadly consistent were an equivalent survey to have been undertaken in respect of the Scheme. The Applicant reiterates that the Landscape Institute Technical Guidance Note (TGN) 2/19 (Ref 1-15)RVAA provides examples of factors which might contribute to the threshold being reached, including 'unavoidable', 'overwhelming', 'oppressive' and 'overly intrusive'. Based on the informed professional judgement that TGN 2/19 states is required to determine such conclusions, the Applicant does not consider that such descriptors

ExQ2	Questions to:	Question:	Applicant's Response:
			and thus the threshold has been reached for any residential properties. Furthermore, the Applicant considers that for properties that are adjacent or close to the Order limits, the combination of their baseline characteristics including orientation and screening, combined with the Scheme design and proposed mitigation, are such that a development of a relatively low profile and where the marginally taller BESS - Solar Station Compounds are located at a minimum of 250m distance, visual effects will be more limited. The Applicant has considered potential visual effects and applied appropriate mitigation for all properties equitably, regardless of financial interest.
Q2.9.7	Applicant	**RVAA** The applicant's written summary of oral submissions at ISH3 [REP4-049] states in part: '*The applicant also confirms that a 'Residential Visual Amenity Survey' was submitted as an appendix to the Environmental Statement for Gate Burton, which considered that the RVAA threshold was not met for that scheme and therefore a full RVAA was not carried out. The Cottam and West Burton landscape and visual assessments similarly did not consider that the RVAA threshold was met for any residential receptors'* Please could the applicant explain why a similar survey has not been undertaken in respect of the proposed development? The applicant's makes the general assertion that: '*While the applicant did identify significant effects for some representative viewpoints for residential properties, this was prior to the establishment of mitigation, and for all other circumstances where residential properties are close to the Scheme, there is screening from existing buildings and/or existing hedgerows or trees'* However, this does not appear to be a very thorough or comprehensive approach in comparison to the property-by-property assessment contained in Gate Burton ES Appendix 10-G. Please provide a justification.	The Applicant has provided justification for the absence of a survey with reference to residential visual amenity in response to Q2.9.6 above.
Q2.9.8	Applicant	**ZTV** Could the applicant please produce one ZTV which shows all four schemes (Gate Burton, West Burton and Cottam included). This need not show the ZTV for individual schemes but should just show the locations where the ZTVs for other schemes and Tillbridge overlap.	The Applicant has produced a ZTV figure (refer to **Appendix F** of this document) that demonstrates locations where theoretical visibility of Scheme and one or more of the other three consented cumulative solar DCO schemes is available. The Applicant notes that cumulative ZTVs differ from those produced for the Scheme in isolation, in that they do not show bandings of percentage visibility. As such there is no distinction between locations with very limited or more extensive theoretical visibility. The Applicant also re-states that whilst the ZTVs incorporate the effects of screening by woodland (derived from the Forestry Commission National Forestry Inventory), this does not take into account screening from hedgerows, isolated trees and woodland or tree belts that are not contained within this database.

ExQ2	Questions to:	Question:	Applicant's Response:
			All ZTVs are considered to be an important part of the evidence base for landscape and visual assessment, but as stated within **Chapter 12: Landscape and Visual Amenity** of the ES **[REP4-013]**, multiple trees and hedgerows combined with distance will rapidly limit visibility of the Scheme away from elevated locations.
Q2.9.9	Applicant	**Winter** The applicant, in responding to Q1.9.7 (REP3-062] refers to paragraph 6.28 of GLVIA3 but caveats this by saying that this guidance *'does not state any specific requirements*.' In assessing the residual effects of the proposed development, would it be more representative to consider views in the winter months or shoulder seasons, given that these represent a significant period of the year when planting would not be in leaf (and as such the landscape and visual effects may be different)?	The LVIA methodology has been accepted as appropriate by LCC, WLDC and BDC, as stated on page 18 of the **Written Summary of Applicant's Oral Submissions at the ISH3 [REP4-049]**. The Applicant maintains that Year 15 (summer) is an established time stage for LVIA and that worst-case operational effects are reflected by the Year 1 (winter stage). The Applicant does not consider that an assessment at Year 15 (winter) would result in a change in reported significant landscape and visual effects. Where mitigation screen planting is proposed in order to reduce visual effects, as illustrated on **Figure 3-1: Indicative Principal Site Layout Plan [AS-055]** and secured through the **Framework Landscape and Ecological Management Plan [EN010142/APP/7.17(Rev05)]**, this has been designed and will be managed to ensure that it will be of sufficient density and height during the winter months, such that visibility will not be materially reduced. The Applicant has previously referenced representative viewpoint 17 on Common Lane, provided as a baseline view and photomontage in **Figure 12-14** of the ES **[APP-187]** and reported in **Chapter 12: Landscape and Visual Amenity** of the ES **[REP4-013]**. This demonstrates an indicative level of screening provided during the winter months from an existing hedgerow, which the Applicant considers reflective of the limited visibility and absence of significant effects from vegetation of a similar scale.
Q2.9.10	Applicant	**Bridleway** The ExA notes the applicant's and WLDC's response to Q1.9.11 [REP3-062]. Could the applicant confirm whether the change in the status of this route would have any bearing on its assessment contained within the ES?	The Applicant provided a response to this question from the Examining Authority in the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** and the **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]**. This is provided below for ease of reference: *"The Applicant confirms that while the claimed Glentworth and Harpswell Public Bridleway route, which the two DMMO applications relate to, is not yet formally confirmed, it has still been assessed as a definitive route within the ES, specifically within **Chapter 12: Landscape and Visual Amenity [EN010142/APP/6.1(Rev02)]**, **Chapter 14: Socioeconomics and Land Use [APP-045]** and **Chapter 16: Transport and Access [APP-047]** of the ES. It is also included within the **Framework Public Rights of Way Management Plan [REP3-041]**, **Framework Landscape and Environmental Management Plan (FLEMP) [EN010142/APP/7.17(Rev04])** and Schedule 6, Part 4 of the **draft DCO [EN010142/APP/3.1(Rev05)]** as set out below.* *The **Framework Landscape and Environmental Management Plan (FLEMP) [EN010142/APP/7.17(Rev04)]** forms part of the Application and provides a framework for achieving the outline design, as presented in **Figure 3-1: Indicative Principal Site Layout Plan** of the ES **[AS-055]**. Paragraph 1.2.11 of the **FLEMP [EN010142/APP/7.17(Rev04)]** acknowledges the presence of the claimed route confirming that works are only proposed for mitigation and enhancement in this area. The Scheme design has considered the claimed route as though it has been confirmed to ensure that should it be confirmed both the Scheme and claimed PRoW can coexist. The land subject to the DMMO is not proposed for development comprising mitigation and enhancement land for biodiversity and archaeology. Further controls are also built into the Scheme through the **Works Plans [REP2-004]** which only authorise Work No. 9 (habitat management and protection) and 11 (sensitive archaeological site) in this area. These works relate to the provision of green infrastructure and comprise no built areas. The works packages in Schedule 1 of the DCO can only be constructed within the corresponding areas shown on the **Works Plans [REP2-004**] meaning the areas for ecological enhancement and the archaeological sensitive sites are fixed*

ExQ2	Questions to:	Question:	Applicant's Response:
			*parameters. In addition, should the claimed route be confirmed, the **Framework Public Right of Way Management Plan [REP3-041]** includes measures to manage the claimed route during construction should this be required (paragraph 3.1.15). The temporary management of the claimed PRoW should it be confirmed is further secured and shown on the **Streets, Rights of Way and Access Plans [REP1-005**] (PRoW – 4/01 and 4/02 of sheet 4 of 24).* *As such, if the DMMO applications are approved, this would not change the conclusions of the ES."* The Applicant provided a further response on this matter as a post-hearing note included in the **Written Summary of Applicant's Oral Submissions at the ISH3 [REP4-049]** in response to discussions at ISH3, consistent with the response set out above.
Q2.9.11	Applicant	**Visual Assessment** Does the applicant's response to Q.1.9.17 [REP3-062] have any bearing on the assessment contained within ES Chapter 18 and specifically that set out in tables 18-12 to 18-18? If so, could the applicant update Chapter 18 accordingly?	The Applicant confirms that the residual effects in relation to the Scheme in isolation for representative viewpoints 13 and 19 were correctly reported in **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** and thus informed the cumulative visual assessment.
Q2.9.12	Applicant	**WLDC** Could the applicant please provide a response to WLDC's response to Q1.9.21 [REP3-066]?	The Applicant provided a response to WLDC's position in **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]**. This is provided below for ease of reference: *"The Applicant has provided a response to this question from the Examining Authority in the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]**.* *As set out within the **Statement of Common Ground with Other Solar Developers [REP1-037]**, the four solar projects are currently in discussions regarding a further cooperation agreement. While the scope and content of this further agreement are still under discussion, it will likely relate to (amongst other things) how the four projects will work together in the discharge of their respective DCO requirements. This could include, but would not necessarily be limited to, the coordination of works, and restoration of landscaping, along the shared Cable Route Corridor."*

11. Noise and Vibration

Table 11-1: Noise and Vibration

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.10.1	Applicant	**Specifications** In its written summary of oral submissions at ISH3 [REP4-049] the applicant states in part: *'The applicant notes that it did look to provide both the specifications included within the application modelling and any further specifications which could be provided in respect of BESS. However, AECOM confirmed that these specifications remain subject to commercial confidentiality, as they have been gathered both directly from suppliers and from modelling gathered in other projects. In addition, further to the comment by Dr Muirhead at the hearing, such specifications can only provide example, and will be subject to the final components utilised at the time of detailed design.'* Why would specification sheets for products available on the open market be confidential? Similarly, if specifications have been gathered from modelling for other projects then isn't that information already publicly available? The ExA understands that the applicant wants to maintain as much flexibility as possible in terms of scheme components. However, to-date, it does not appear that any evidence has been submitted to support the sound power levels contained within the ES. This general absence of information could be problematic and therefore the applicant is invited to provide this, at least on an indicative basis, to enable the ExA to confirm the veracity of the data which underpins the noise modelling. Please can the applicant therefore provide this information?	The Applicant does not agree that the approach to utilise confidential data within noise models, but not share the direct source of that data with the Examining Authority is problematic or in any way unusual. This approach is the standard used across planning and DCO applications, including all other solar DCO applications made and since granted within Lincolnshire. The Applicant has engaged suitably professional and competent experts, as detailed in **Appendix 1-3: EIA Statement of Competence** of the ES **[APP-053]** (and as required by Regulation 14(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, which also expressly requires that "*the applicant must ensure that the environmental statement is prepared by competent experts*" to ensure the quality and completeness of the ES). The Applicant does not consider that there is a need to interrogate every input into models and assessments within the Scheme, in the same manner as presuming results from ecology or traffic surveys have been competently and correctly gathered. The Applicant and its consultants are subject to strict confidentiality requirements from suppliers and manufacturers and/or other clients which restrict the non-aggregated data they are able to share. For example, when noise monitoring data is collected it is owned by the company paying for the measurements and all reports include clauses which state that *"No part of this document may be reproduced or distributed in any form or by any means without the prior written permission of [the client]"*. To illustrate the types of information which are in the public domain, the Applicant has provided examples of publicly available data sheets for the Scheme infrastructure in **Appendix G** of this document. This covers data sheets for BESS, inverters and transformers. However, only the data sheet for BESS Enclosures contains a specific reference to noise. The information which is provided is high level, and stating only that noise levels would be 75 dB at 1m distance. By comparison to the detailed noise levels assumed or incorporated for the project, the relevant considerations vary significantly across different operating conditions, cardinal directions and heights, making a simple value comparison between different models of Scheme infrastructure meaningless. The Applicant therefore does not consider this information is helpful to the underlying question of the Examining Authority as to any noise differences between AC and DC coupled systems, and considers its answer as provided in the **Written Summary of Applicant's Oral Submissions at ISH3 [REP4-049]** to provide more useful information on the differences between such systems and the likely implications of these on noise levels. To clarify the common approach to confidentiality within the sector, detailed technical information on these components, such as sound power and sound pressure levels, noise insulation, or barrier extensions, are not publicly disclosed by manufacturers. This also applies to any information regarding transformers as they are specialised units rather than mass-produced components. All non-public data is confidential and classified as commercial information. Access to this data requires companies to sign non-disclosure agreements and confidentiality agreements, which prohibit them, in this case, the Applicant, from sharing it.
Q2.10.2	Applicant, LCC, WLDC and 7000 Acres	**Requirement 17** In its written summary of oral submissions at ISH3 [REP4-049] the applicant states in part: '*Dr Muirhead, for the applicant responded to questions of clarification from the ExA, WLDC and LCC as to whether ongoing monitoring could be deployed once components*	Requirement 17 concerns the operational noise of the as-built scheme following detailed design. It commits to these levels at noise sensitive receptors being no higher than reported in the ES. Noise monitoring at source is not a relevant part of this requirement since it must be met prior to commencement of the construction of the Scheme. Additionally, in the final design, operational plant may have moved in terms of its physical location when compared to the indicative masterplan, meaning that noise levels at sensitive receptors would need to be calculated from the sound power levels of the plant and the associated distances from receivers.

ExQ2	Questions to:	Question:	Applicant's Response:
		were constructed and operational. He noted that this poses difficulties as such real-time monitoring can be inaccurate, due to the interference of background noise levels, particularly when monitoring at receptors some distance from plant (as opposed to monitoring at source). On this basis, the approach of using modelled data from final specifications (or monitored data at source from routine maintenance) is considered to be more accurate.' The ExA would like the applicant, LCC, WLDC and 7000 Acres to provide representations on the acceptability of a modification to requirement 17, which required noise monitoring at source? Particularly taking into account that the main problem with noise monitoring cited by the applicant relates to monitoring from receptors.	Once the plant is installed, noise monitoring at source becomes a relevant control measure, as, without any changes between the source and receiver, changes in the noise at source can be considered to correlate with changes in noise at sensitive receptors. The requirement for controlling noise monitoring at source is embedded within **Table 3-8** of the **Framework OEMP [REP4-022]**, which is secured through Requirement 13 of the **draft DCO [EN010142/APP/3.1(Rev06)]**. This includes the requirement that results of the sound monitoring of plant during the operational lifetime of the Scheme, carried out during regular maintenance checks, would be submitted to the relevant planning authority for review and further action taken, where required.
Q2.10.3	Applicant, LCC, WLDC and 7000 Acres	**Requirement 17** In its written summary of oral submissions at ISH3 [REP4-049] the applicant states in part: '*The applicant has updated table 3-8 of the Framework OEMP [EN010142/APP/7.9(Rev03)] to clarify that results of the sound monitoring of plant during the operational lifetime of the Scheme, carried out during regular maintenance checks, would be submitted to the relevant planning authority for review and further action where required. This would act as evidence that the operational noise from the Scheme would not exceed throughout its lifetime. In other words, that the data that informed the operational noise assessment, completed at the detailed design stage to comply with Requirement 17, remained valid. The applicant understands from initial discussions that this amendment is likely to be acceptable to LCC.'* The ExA would like the applicant, LCC, WLDC and 7000 Acres to provide a response to confirm the acceptability of incorporating this approach into Requirement 17 such that it is controlled and implemented effectively? At present requirement 17 only ensures that the proposed development is designed to operate at the noise levels set out in the ES, with no requirement for it to operate in accordance with the same details. The ExA is concerned that the applicant is placing far too much reliance on the modelling and proposed mitigation measures being accurate and effective, respectively?	As stated above, in response to Q2.10.2, Requirement 17 must be met prior to the construction of the Scheme, therefore routine maintenance, including the monitoring of plant at source, cannot be incorporated into this condition as such plant would not be operational on site at the time of the assessment. The relevant Requirement which secures the **Framework OEMP [REP4-022]**, and ensures any detailed OEMP must be finalised and applied in general accordance with the **Framework OEMP [REP4-022]** is Requirement 13 of the **draft DCO [EN010142/APP/3.1(Rev06)]**. On this basis, the Applicant does not consider it necessary to amend Requirement 17, as the point highlighted is already secured. The Applicant considers there is value in both ensuring detailed design and plant selection is required to be designed to specific sound levels (as per Requirement 17) and that these are validated throughout the life of the Scheme through regular monitoring (as per the **Framework OEMP [REP4-022]**, secured by Requirement 13). This approach ensures that reliance is not placed either just on modelling utilised at detailed design / plant selection, nor on monitoring during the life of the Scheme.
Q2.10.4	Applicant, LCC and WLDC	**Construction noise** WLDCs summary of oral submissions at ISH3 [REP3-067] states in part:	While WLDC's submission does not distinguish between operational and construction noise in its discussion of cumulative noise impacts and their management, the Applicant considers it is important to respond on these impacts separately, given the nature of noise is different at construction and operation, and given there are discrete DCO requirements which address these separately. WLDC's submission appears to have applied

ExQ2	Questions to:	Question:	Applicant's Response:
		'The requirement to identify a clear and efficient mechanism through DCO 'requirements' to deal with noise complaints is even more important to protect residential amenity due to the provisions of Article 7 of the dDCO, which provides the applicant with defence against claims of statutory nuisance. With this mechanism removed, local residents do not have the ability to resolve matters through the Environment Protection Act 1990, and it therefore falls to the DCO 'requirements' to ensure impacts can be remedied swiftly.' Could the applicant provide a response and indicate how this matter could be addressed through a requirement or other provision contained within the dDCO? Furthermore, could WLDC and LCC provide any suggested solution/wording to be contained within the DCO?	the requirements which relate to operational noise as if they apply to construction noise management as well and does not appear to have had had regard to the separate construction noise mitigation and management approach presented in the application. **Construction noise** The **Framework CEMP [EN010142/APP/7.8(Rev03)]**, as secured by Requirement 13 of the **draft DCO [EN010142/APP/3.1(Rev06)]** is the mechanism securing construction noise mitigation. This includes controls for noise within section 2.5, which provides that consents would be sought under section 61 of the Control of Pollution Act 1974 (Ref 1-16) would be obtained for works outside normal working hours. These consents would apply construction noise limits for nearby noise sensitive receptors and in accordance with any other restrictions agreed with the relevant planning authorities. **Table 3-8** of the **Framework CEMP [EN010142/APP/7.8(Rev03)]** requires that "*Regular liaison meetings will be held with other high-risk construction sites within 500m of the Scheme (or greater, if applicable), to ensure plans are co-ordinated and noise and vibration is minimised. It is important to understand the interactions of the off-site transport / deliveries which might be using the same routes.*" **Table 3-8** also states that "*Noise complaints will be monitored and reported to the Applicant for immediate investigation and action. A display board will be installed on-site, and a website will be set up. These will include contact details for the Community Liaison Officer or alternative with whom nuisance or complaints can be lodged. A logbook of complaints will be prepared and managed by the Site Manager.*" These provisions ensure that the Applicant manages, and immediately investigates any complaints made in respect of construction noise. Consents sought under the Control of Pollution Act would ensure noise limits are set for any particularly noisy works. **Operational noise** By comparison, any cumulative operational noise between the four solar schemes is much less likely. As outlined in paragraphs 18.14.13 and 18.14.14 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**, this is due to the significant distances between each of the four operational solar areas (and associated noise generating infrastructure such as Solar Stations or substations). The primary area of overlap between the projects, being the combined cable route, will be underground and therefore generate no noise. The cumulative effects assessment found there would be only one receptor with a possibility of cumulative noise with another of the solar schemes, being R14 (Glentworth Grange / Kexby Road). However, the assessment found that any increase would be less than 3dB and therefore imperceptible to human receptors. With the context of any operational cumulative noise effects being unlikely, the nature of the complaint, including the location, distance to solar infrastructure, and perceived direction of the sound should clearly identify the scheme to which the complaint relates. The suggestion to include measures which require operational plant to shut down in order to assess noise is therefore unnecessary, and would disproportionately impact the operation of the Scheme for no benefit. Despite this, the Applicant has proposed mitigation measures so as to ensure any operational noise is appropriately managed. The provisions contained within **Table 3-8** of the **Framework OEMP [REP4-022]**, such as the reporting of monitored plant noise to the relevant planning authority, will then help identify whether there is an issue to be addressed in terms of the Scheme infrastructure. Where this review

ExQ2	Questions to:	Question:	Applicant's Response:
			indicates plant noise levels generated by the Scheme have materially increased, the undertaker and relevant planning authority will liaise in respect of any further maintenance or mitigation required to reduce levels at receptors back to those presented in the ES. Requirement 17 of the **draft DCO [EN010142/APP/3.1(Rev06)]** is not merely concerned with mitigation but also necessitates that the Scheme's components are designed and selected so that noise levels at residential properties are no higher than those reported in the ES, effectively ensuring specific noise limits at local properties are not significant. Finally, in respect of the comment about Article 7 of the **draft DCO [EN010142/APP/3.1(Rev06)]**, it is correct that this alters the application of the Environmental Protection Act (Ref 1-17) where orders cannot be made if the nuisance relates to one of the listed scenarios in that article. This is a standard, model provision to manage overlap between regimes. In line with Regulation 5(2)(f) of the APFP Regulations (Ref 1-18), the Applicant submitted the **Statutory Nuisance Statement [APP-218]** which confirmed the threshold for statutory nuisances would not be met by any effects of the Scheme (including noise).
Q2.10.5	Applicant	**Vibration** The ExA notes the applicant's response to Q1.10.12. However, can the applicant incorporate the following more specific wording from the ES into the CEMP and DEMP: *'For PPV vibration levels anticipated to exceed 1.0mm/s, prior warning will be provided on the timings and duration of vibration generating activities.'*	This wording has been added to **Table 3-8** of the **Framework CEMP [EN010142/APP/7.8(Rev05)]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]**.

12. Socio-economic effects

Table 12-1: Socio-economic effects

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.11.1	Applicant	**Amenity** The applicant's response to Q1.11.1 [REP3-062] outlines that: '*Comparable amenity assessments, including those undertaken both for other NSIPs such as Thames Tideway Tunnel, and exemplar assessments such as the High Speed 2 Phase 1 Environmental Impact Assessment, have determined that less than five residential properties grouped together do not constitute a sizable proportion of the local community and therefore a significant in-combination amenity effect at smaller groups or individual properties is not possible'* It also states: *'Were a group of five properties or more deemed to all experience a significant residual effect in relation to two or more of the other topics outlined above, occurring at the same time, a significant residual amenity effect would be reported. There are no such instances of this occurring in relation to the Scheme'* However, the ExA would like the applicant to provide evidence of this methodology used in other projects (with specific paragraph and document references provided). In addition, the developments cited by the applicant are not the same types of development as that proposed (both are linear developments) and neither are they in a similar location. As such, please confirm whether such an approach is applicable to the proposed development. Furthermore, please confirm why this justification is not included in the ES?	The methodology as applied on HS2 London – West Midlands (often known as High Speed 2 Phase 1) is set out in Annex B of its Scope and Methodology Report (Ref 1-19), within Table 1: 'Guidance on assessing sensitivity and magnitude' below paragraph 3.3.5. The Impact labelled "1.2 Amenity value of residential property is changed" is the relevant impact. The Applicant's position is that such an approach is applicable to the Scheme and is capable of application to any type of infrastructure project. Whilst the HS2 project is a linear infrastructure scheme, the presence of construction compounds, during construction, and stations and depots during operation, are clearly indicative of it containing substantial areas of non-linear development within its scheme boundary. Effects arising from the redevelopment of Euston Station to extend and refurbish it, a large construction project at a non-linear site, provide a relevant example. As reported in its Community Forum Report (Ref 1-20) at paragraphs 8.4.4 to 8.4.10, a number of amenity effects were assessed as likely to arise on groups of residential properties from construction activity at the station. As well as effects arising from on-site construction activities, it also reports effects arising from a combination of off-site traffic volume and traffic noise effects. The latter demonstrates how amenity effects can arise in a manner not specific to the type of development in terms of its linearity/non-linearity. It is of note that effects are also reported for non-residential receptors, using the same methodology, within the same report, for example at paragraph 8.4.17 in respect of a sensitive community facility (a school). This evidences its wider applicability for assessing impacts/effects on socio-economic/community receptors and further justifies its suitability as an approach. The Applicant notes that the assessment approach reflects that also undertaken for the Gate Burton Energy Park project (Application Document Ref: EN010131/APP/3.1, Volume 1, Chapter 12: Socio-Economics and Land Use). The justification for the approach taken and its applicability is not included in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**. It reflects the approach taken to the assessment of amenity effects in other solar DCO applications (e.g. Gate Burton Energy Park and Sunnica Energy Farm) so it was not considered necessary to set this out specifically in the chapter.
Q2.11.2	Applicant	**Amenity** It is noted that the applicant seeks to assert that in-combination effects '*are not amenity effects, but rather effects on individual receptors arising due to the interaction of multiple other effects'* [REP3-062]. However, the applicant itself has cited transport, noise, air quality and other effects in Planning Statement paragraph 6.14.30 [REP3-028]. It is the ExAs understanding that in-combination effects are a combination of such effects. So how can it be true that those effects listed in paragraph 6.14.30 are relevant to amenity but that in-combination effects (the same effects combined) are not?	The Applicant would like to clarify in respect of the statement from the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** quoted by the ExA, which must be read in the wider context of the Applicant's full response to Q1.11.1. The statement quoted by the ExA is referring to the effects identified in Table 18-7 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**, which sets out potential effect interactions which may lead to in-combination effects on individual receptors: "*In terms of Table 18-7 in Chapter 18: Cumulative Effects and Interactions of the ES [EN010142/APP/6.1(Rev01)] specifically, this table does not relate to cumulative effects on amenity but rather the interaction of two or more predicted environmental effects resulting from the Scheme that, collectively, may cause a greater effect than each effect in isolation (i.e., effect interactions). Table 18-7 sets out where a receptor has been identified to experience multiple effects above the negligible effect category in any of Chapter 16: Transport and Access [APP-047], Chapter 13: Noise and Vibration [AS-006], Chapter 12: Landscape and Visual Amenity [EN010142/APP/6.1(Rev01)], and Chapter 6: Air Quality [APP-037] of the ES, as applicable, and assesses whether the interaction of these effects will result in an overall effect*

ExQ2	Questions to:	Question:	Applicant's Response:
			*that is significant. As such, **the effects identified in Table 18-7** are not amenity effects, but rather effects on individual receptors arising due to the interaction of multiple other effects.*" (Emphasis added) In providing a response to Q1.11.1, the Applicant was seeking to highlight the difference between effect interactions which may lead to in-combination effects on individual receptors, as reported within Table 18-7, and the assessment of effects reported within **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**, which considers in-combination amenity effects on communities. For the purposes of the assessment set out in Chapter 14, the definition of impacts on the amenity of a community was based on the approach adopted for HS2, set out in Annex B of the Scope and Methodology Report for High Speed 2 Phase 1 in Table 1: 'Guidance on assessing sensitivity and magnitude' below paragraph 3.3.5, see impact labelled "1.2 Amenity value of residential property is changed" (Ref 1-19). The Applicant recognises that the definition of 'amenity' within the socio-economic assessment is specific and it is capable of being defined differently, but the assessment has applied a clear definition based on exemplar assessment guidance. For clarity, the statement quoted by the ExA could instead be read as follows: '*are not amenity effects **on communities**, but rather effects on individual receptors arising due to the interaction of multiple other effects'.*
Q2.11.3	Applicant	**Employment Generated** In response to Q1.11.4 [REP3-062] the applicant states in part: '*In response to a), the applicant has derived these figures from experience of delivering solar PV schemes elsewhere and benchmarking against consented solar NSIPs where information from the planning stage is publicly available. Consideration has been given to employment requirements by task and by phase of work*' Whilst the applicant asserts that the information is 'publicly available', it is the responsibility of the applicant to provide it to the ExA. Can this information be provided please?	This is a reference to the Applicant having reviewed proposed employment levels/requirements reported within other solar DCO applications submitted to the Planning Inspectorate. This includes Sunnica Energy Farm (**Application Document Ref: EN010106/APP/6.1, Chapter 12: Socio-Economics and Land Use** *Paragraph 12.8.3, 12.8.44, and 12.8.63*), Cottam Solar Project (**Application Document Ref: EN010133/APP/C6.2.18, Chapter 18: Socio-Economics, Tourism and Recreation** *Paragraph 18.7.5, 18.7.70, and 18.7.115)*, Gate Burton Energy Park (**Application Document Ref: EN010131/APP/3.1, Volume 1, Chapter 12: Socio-Economics and Land Use** *Paragraph 12.10.2, 12.10.14, and 12.10.26),* and West Burton Solar Project (**Application Document Ref: EN010132/APP/WB6.2.18, Chapter 18: Socio-Economics and Tourism and Recreation** *Paragraph 18.7.5, 18.7.72, and 18.7.119*).
Q2.11.4	Applicant	'**Local land use and amenity'** The applicant's response to Q1.11.9 sets out the impact magnitude criteria used in relation to 'in-combination' amenity effects in ES Chapter 14. These are as follow: '*• High: Either three or more residual significant other effects for the receptor with at least one being of a major nature, or two major residual significant other effects.* *• Medium: Two significant residual other environmental effects with at least one being of a major nature.* *• Low: Two significant residual other environmental effects, both being moderate in nature.* *• No effect: One significant /and or less significant residual other environmental effects.'* Firstly, could the applicant please confirm whether its position is that there must be a *'combination' of effects in order for there to*	The Applicant can confirm that this is its position. Refer to the Applicant's response to Q.2.11.1 above for explanation and for appropriate references to the applicable methodology which defines effects on amenity which have been applied in the assessment in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**.

ExQ2	Questions to:	Question:	Applicant's Response:
		be any significant effect on amenity? It is noted that the applicant has cited the use of this method in relation to other developments. Please provide evidence of this with appropriate references?	
Q2.11.5	Applicant	**Existing Employment** The applicant's response to Q.1.11.11 [REP3-062] asserts that there are 12 landowning farming business across the principal site. Yet ES paragraph 14.8.49 [APP-045] asserts that only 10 FTE jobs will be lost. The applicant's response to Q.1.11.11 also indicates that there would be no direct impact on permanent employee numbers. How can this be the case, given the change in land use and the inability of those farming business to use land within the principal site for agriculture? Is the applicant suggesting that these farming businesses have access to other agricultural land nearby or is there another explanation for these conclusions?	To provide clarification, the reference to permanent employee numbers in the Applicant's response to Q.1.11.11 **[REP3-062]** is to those operating the farming businesses across the Principal Site. These personnel would still be required to perform this role for the diversified farming operations when the Principal Site is operational. As such, there would be no likely direct impact on the permanent employee numbers of these businesses. Part-time employees that may have been seasonally employed would no longer be required. Discussions with the two tenant farmers affected has indicated that existing employment levels are such that less than 10 jobs will be lost, and as such this number represents a reasonable worst-case appropriate for informing the assessment.
Q2.11.6	7000 Acres	**Study Area** In its written representation [REP2-021], 7000 Acres asserts that the study area for socio-economic effects has been considered too broadly and should have included a narrower focus. 7000 Acres suggest that '*socioeconomic difficulties of the nearest town, Gainsborough*' have not been sufficiently considered. Could 7000 Acres please elaborate on how it considers such a focus would have influenced the assessment? For example, taking into account employment and the figures provided in the ES, how would a focus on deprivation in Gainsborough have affected the alleged employment benefits of the proposed development?	Although this question is not directed to the Applicant, the following response is provided to assist the ExA in considering the matters raised. In response to concerns raised in **7000 Acres - Written Representations - Socio-Economics and Land Use [REP2-021]** regarding the study area's scope, the Applicant acknowledges the importance of localised socio-economic conditions. **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]** provides a holistic and robust assessment of the scale and scope of effects, whereby the impacts of the Scheme are considered at varying spatial levels according to the extent of the effect under consideration. The study area has been defined to ensure a balanced and comprehensive assessment of impacts, capturing both localised and wider economic influences. This approach is consistent with best practice guidance, including the Homes and Communities Agency (HCA), now known as Homes England, guidance entitled *'Additionality Guide, A Standard Approach to Assessing the Additional Impacts of Projects, 4th Edition'* (Ref 1-21). In terms of economy and employment as per the example in Q2.11.6, impacts have been considered within West Lindsey District and Bassetlaw District, which are the Local Planning Authorities that the Scheme falls within, and the wider East Midlands region. As such, Gainsborough, as the nearest town, is reflected within the West Lindsey District analysis, reflecting that while the assessment adopts a holistic spatial focus to capture wider economic influences, it also considers the socio-economic characteristics of local communities. Crucially, the assessment undertaken is not prejudiced against areas experiencing deprivation. Rather, it applies an objective and evidence-based approach to evaluating socio-economic impacts across the defined study area. The Applicant has undertaken a comprehensive and robust Environmental Impact Assessment so that any likely adverse impacts of the Scheme can be identified, and likely significant effects can be identified and mitigated (where adverse), which is presented in the ES **[APP-031 to APP-209]**. The Assessment in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]** concludes that the Scheme would generate a minor beneficial effect in terms of net employment during construction and decommissioning, evidencing that the Scheme stands to contribute towards the local economy and supply chain, and this includes through the provision of jobs (both directly and indirectly) in the local area. Additionally, the

ExQ2	Questions to:	Question:	Applicant's Response:
			Scheme's employment and supply chain benefits, as outlined in the **Framework Skills, Supply Chain, and Employment Plan (SSCEP) [APP-232]**, have been designed to maximise opportunities for local businesses and individuals, including those in areas of deprivation. Pages 32 and 33 of the **Framework SSCEP [APP-232]**, outline commitments by the Applicant and opportunities which the Applicant has identified could be employed to maximise the diversity of the workforce. The Applicant has committed to: • Metrics on workforce diversity, gender split of workforce, skill level of workforce (skilled/unskilled) to be required by the Applicant for all contractors. • A Sustainable Sourcing Policy and Equality Policy will be followed by the Applicant when selecting contractors, including with reference to protected characteristics. • Regularly reporting on demographics of both applications and successful candidates. The Applicant has also proposed to: • Undertake consultation and/or research post consent with the local community to identify particular protected characteristic groups that could be targeted for particular measures by the Scheme. • Ensure target groups are directly engaged with via local community networks or job brokerage agencies for employment opportunities. • Working with job support and training providers who operate programmes aimed at getting people into work (for example, young people who are Not in Education, Employment or Training (NEET) may require pre-employment, basic skills training and work placements). Given this, a narrower focus on Gainsborough would not materially alter the assessment's conclusions, as the socio-economic impacts of the Scheme extend beyond individual settlements and influence a broader workforce catchment, and the identified employment benefits and mitigation measures apply to the town as part of the broader socio-economic context. It is noted that the above are opportunities identified at this stage, and specific measures to target protected characteristic groups could be added to the final SSCEP based on community feedback and any input from the Examination process, including in Gainsborough.
Q2.11.7	Applicant	**GVA** 7000 Acres in its written representation [REP2-021] states in part: '*Considering GVA per head, the applicant uses for reference Lincolnshire (£18,816) and Nottinghamshire (18,816), and notes these are lower than the East Midlands (£21,845) and England (£27,949). The applicant states that data is not available at local authority level, but further data is available, with the GVA for West Lindsey, the area most impacted by the development being even lower – at £14,971'* Could the applicant please provide a response?	Section 14.6 of **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]** presents baseline data on Gross Value Added (GVA) per head, which is derived from output per worker across all industries. This provides context for understanding the prevailing economic conditions within the study area. GVA per head across all industries provides a broad indicator of economic performance in the study area, the primary focus of the economic impact assessment for the Scheme is on construction-specific GVA per worker. This ensures that the assessment reflects the direct economic contribution of the Scheme, particularly in terms of employment and productivity within the construction sector. The approach aligns with industry best practices for measuring economic impact, as it allows for a more precise evaluation of the Scheme's contribution to job creation and economic output. GVA per worker specific to the construction industry is presented within the assessment at Section 14.8 in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**. In response to **7000 Acres Written Representations – Socio-Economics and Land Use [REP2-021]**, which references the GVA per head statistics for West Lindsey, it is understood that the GVA data for this area is based on 2016 statistics published under the "Regional Gross Value Added (Balanced) by Local Authority in the UK" (Ref 1-22) and represents the latest data available at this level of granularity, i.e. District authority level. This dataset is derived from ONS experimental data and as such, is subject to limitations and should be used with caution. Experimental statistics are typically still in the process of validation and refinement and may not have the same level of reliability. While they provide valuable insights, they should

ExQ2	Questions to:	Question:	Applicant's Response:
			be interpreted with an understanding of their experimental nature, and the potential for future revisions or updates. Conversely, the baseline GVA statistics used in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]** are derived from "Regional Gross Value Added (Income Approach)" (Ref 1-23) which is an established and standardised ONS dataset that has undergone full validation. It is considered more appropriate to rely on standardised datasets at a broader geographic level to ensure consistency and robustness in the assessment. The GVA per head numbers that are referenced in this section of the written representation **[REP2-021]** have not directly informed the assessment of GVA generation during construction. West Lindsey having a lower all industries GVA per worker than the other areas would therefore not alter the assessment conclusions. From purely a baseline context perspective, for this Scheme a lower reported GVA per head in the baseline would not translate into lower economic benefits such as from employment and GVA being achieved than in an area with a higher GVA per head. This is because the activities involved in both construction and operation for the Scheme both have a higher average GVA per worker than the all industries GVA per worker reported for the study area, and as such creating more jobs in these activities would have the effect of increasing levels of GVA per head, rather than reducing these were this to have been a part of the agreed scope of the assessment presented in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**. It should be noted that were a lower GVA per head per construction worker used in the assessment than has been used for that calculation (£57,200 for East Midlands in 2019) this could result in lower GVA and potentially a changed assessment calculation. However, as explained in the Applicant's response to Q1.11.7 **[REP3-062]**, in recognition that part of the construction labour force would ordinarily reside outside the study area, the GVA generated by workers has been assessed justifiably using regional, East Midlands, data rather than using any more local data. For clarity, were a lower GVA per construction worker to have been applied in the assessment, the absolute GVA would reduce but the conclusion of minor beneficial (not significant) effect would remain valid. As such, whilst including the GVA figures provided in 7000 Acres' **Written Representations – Socio-Economics and Land Use [REP2-021]** at local authority level for West Lindsey might have provided further context to the assessment, it would not alter the fundamental findings of the assessment in **Chapter 14: Socio-economics and Land Use** of the ES **[APP-045]**. The inclusion of West Lindsey's specific GVA data in isolation is therefore not critical to the conclusions drawn in the ES. The baseline assessment appropriately reflects the local economic conditions, the main economic impact assessment of the Scheme having focused specifically on construction GVA per worker rather than the broader GVA per head statistics, and the economic impact of the Scheme is projected to be beneficial.
Q2.11.8	Applicant	**Existing Employment Losses** The applicant's response to Q1.11.12 [REP3-062] refers to ES table 14-20 [APP-045]. However, the ExA would like the applicant to expand on which jobs would be lost and why, with reference to the assertions made in 7000 Acres written representation [REP2-021], which states in part: '*The applicant estimates that 10 jobs would be lost because of ceasing agricultural activities, without offering any further explanation. It is therefore not possible to assess the basis upon which the loss of agricultural jobs has been calculated. It is not clear whether this includes any "indirect or induced employment", which has been included when considering*	As referenced at Q1.11.12 and set out in the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]**, employees that may have been seasonally employed at farming businesses would no longer be required once the Principal Site is operational. Of all the farming businesses only one of the tenant farming businesses employs workers on the parts of the Principal Site which would be used by the Scheme, amounting to one paid staff member. Numbers employed in agriculture are in decline generally and the industry is experiencing a shortage of experienced farm workers, indicating that levels of employment on-site in the absence of the Scheme would not exceed the worst-case of 10 jobs lost. It is again noted that, during operation, the Scheme's occupation of landowners' land, as a new diversified enterprise, will provide a new income stream independent of variations in profitability of arable production. This diversified enterprise may also enable managers of farm businesses that are currently too small to be economically viable, to wind up the farm business. Comments made by Mr Elwess at the Open Floor

ExQ2	Questions to:	Question:	Applicant's Response:
		employment created by the proposed scheme. There is no information on the types of role lost, any levels of variable work arising from the seasonal nature of farming, the skills the roles require or the financial contribution they may make.'	Hearing 2 on 14 January 2025 and set out in his **Post-Hearing Submissions [REP4-121]** are evidence of this having potential to be experienced if the Scheme is developed.

13. Soils and Agriculture

Table 13-1: Soils and Agriculture

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.12.1	Applicant	**Agricultural Land Classification** The Governments Written Ministerial Statement "Solar and protecting our Food Security and Best and Most Versatile (BMV) Land" made on 15 May 2024 highlights concerns with land classification surveys. In particular "T*he Government has heard concerns about the perceived inaccuracy and unfairness of soil surveys undertaken as part of the planning process for solar development. The Government will address this by supporting independent certification by an appropriate certifying body, subject to relevant business case approval, to ensure Agricultural Land Classification Soil Surveys are of a high standard, requiring surveyors to demonstrate meeting an agreed minimum requirement of training/experience. We will also seek to ensure consistency in how data is recorded and presented, so that reports on agricultural land classification are consistent, authoritative and objective*." Given this concern can the applicant advise how its soil surveys and assessments would meet the standards the Government sets out above?	The Written Ministerial Statement (Ref 1-24) alludes to concerns about "*the perceived inaccuracy and unfairness of soil surveys undertaken as part of the planning process for solar development*" but does not mention any instance where any solar developer has submitted such an ALC assessment. The ALC assessment presented by the Applicant was undertaken by an experienced specialist following the guidance given by the statutory consultee (Natural England) in their document *Agricultural Land Classification: protecting the best and most versatile agricultural land - TIN049* (Ref 1-25). Prior to submitting, the Applicant had the assessment peer-reviewed by another experienced ALC specialist including site work to check the soil physical conditions recorded in the field work log. Following submission, the ALC assessment has been reviewed by the statutory consultee, Natural England. In their Relevant Representation **[RR-208]**, Natural England provided detailed feedback on soils and agricultural land and did not raise any concern regarding the competence, accuracy, objectivity or fairness of the submitted ALC assessment. To the extent that the Written Ministerial Statement has set a new standard for ALC assessments (which the Applicant does not understand to be the case given this has not been reflected in any changes to national policy), that standard has clearly been met in respect of the Scheme.

14. Transport and access

Table 14-1: Transport and access

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.13.1	Applicant	**Cumulative Effects** The applicant's response to Q1.13.2 [REP3-062] is noted. However, the updated Figure 18-5 [REP3-026] appears to show many ATC locations on the Cumulative Traffic Route which are not included in ES table 18-27 [REP4-015]. Could the applicant please explain why certain ATC locations appear to have been omitted (and update table 18-27 and the associated assessment if required)?	The Applicant can confirm that cumulative assessment has been undertaken for all ATC locations that are included in **Figure 18-5: Transport Cumulative Traffic Routes** of the ES **[REP3-026]**. Many of the ATC locations are on the same road where the flow is consistent along the link. In those instances, the ATC location with the worst-case percentage increase, generally but not always due to having the lowest baseline flow, has been selected for inclusion in Table 18-27 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN101042/APP/6.1(Rev03)]**. This is reflected in the title of the table showing "worst case" cumulative impact, however the Applicant accepts that this is not sufficiently clear in the text. For full clarity, the Applicant has updated **Table 18-27** within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN101042/APP/6.1(Rev03)]** to include every ATC location, even where there is no cumulative impact. This presents the full evidence of the assessment undertaken and confirms that there are no further significant cumulative effects. In addition, the Applicant has made a minor update to **Figure 18-5 [EN010142/APP/6.3(Rev02)]** which is also submitted at Deadline 5. The previous iteration included ATC 10 and ATC 25 on cumulative construction routes, whereas the cumulative construction routes will not use these links. This corrects a presentation error and does not change the construction routeing secured through the **Framework CTMP [EN010142/APP/7.11(Rev05)]** or the assessment presented in the ES.
Q2.13.2	Applicant	**Cumulative Effects** Further to the applicant's response to Q1.13.6 [REP3-062], could the applicant please explain why and how there appears to be no assessment or analysis of the effect of cumulative construction on ATC23. Particularly given that significant effects have been identified in ES paragraph 16.8.48 [APP-047] for the Tillbridge project in isolation. Again, ATC23 is not included in table 18-27 [REP4-015], but appears on the 'Cumulative Traffic Route' in Figure 18-5 [REP3-026]. Can the applicant confirm whether this part of the Cumulative Traffic Route relates to the cable route only, or whether it would be utilised by vehicles delivering panel and other components to the various sites? If the latter, then should it be included in the assessment at ES Chapter 18 and specifically table 18-27?	Please refer to the response to Q2.13.1 above, and the updated **Table 18-27** within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN101042/APP/6.1(Rev03)]** submitted at Deadline 5. Paragraph 18.17.72-73 of the original Chapter 18, now paragraph 18.17.75-76 in the updated version, sets out the conclusion of the Cumulative assessment for the B1241, which includes ATC23. This conclusion remains that there would be a slight adverse cumulative impact on the B1241 including ATC23, which is **not significant**. Please also refer to the response to Q2.13.11 below for additional mitigation which the Applicant proposes for the B1241 including ATC23.
Q2.13.3	Applicant	**Construction Traffic** The applicant's response to Q1.13.10 [REP3-62] is noted. However, could the applicant please explain why ES table 18-27 [REP4-015] does not appear to include any cumulative assessment for the ATC locations on the B1421, specifically ATC23 and ATC25?	Please refer to the response to Q2.13.1 and Q2.13.2 above, and the updated **Table 18-27** within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN101042/APP/6.1(Rev03)]** submitted at Deadline 5. Paragraph 18.17.72-73 of the original Chapter 18, now paragraph 18.17.75-76 in the updated version, sets out the conclusion of the cumulative assessment for the B1241, which includes ATC23. This conclusion remains that there would be a slight adverse cumulative impact on the B1241 including ATC23, which is **not significant**. Please also refer to the response to Q2.13.11 below for additional mitigation which the Applicant proposes for the B1241 including ATC23.

ExQ2	Questions to:	Question:	Applicant's Response:
			There will be no traffic flows associated with the Scheme at ATC25, Saxilby Road, South of Queensway, as shown in **Table 16-17** of **Chapter 16: Transport and Access** of the ES **[APP-047]**. As such, no cumulative assessment is required or presented.
Q2.13.4	Applicant	**FCTMP** Please could the applicant provide a response to WLDCs response to Q1.13.12 [REP3-066]?	The Applicant has responded to this within the **Applicant's Comments on Interested Parties Submissions to the First Written Questions at Deadline 3 [REP4-048]**. The response is provided below for ease of reference. *"Primarily, the Applicant considers it would be inappropriate to implement a requirement in the **draft DCO [EN010142/APP/3.1(Rev05)]** for a joint CTMP, because:* • *Section 120 of the Planning Act (Ref 1-12) provides that a DCO may impose requirements in connection with the development for which consent is granted. Such requirements may correspond with conditions which could have been imposed on the grant of planning permission under the Town and Country Planning Act 1990 (Ref 1-13). In this regard, the relevant paragraphs of the National Planning Policy Framework (Ref 1-4) and associated Planning Practice Guidance (Ref 1-5) concerning conditions generally apply. Requirements should therefore be precise, enforceable, necessary, relevant to the development, relevant to planning and reasonable in all other respects.* • *The Applicant does not consider a requirement which enforces a Joint Cooperation agreement or Joint Management Plans would meet these standards, as no single party has authority over another and each DCO only controls the activities for that project. While Tillbridge Solar can endeavour to align management of works with the other developers, it cannot compel them to do so, and it cannot utilise the powers within their draft DCO unless specifically provided for by those undertakers. Any such requirement would therefore reach beyond the extent of the works within this Scheme being authorised, and as such would not be enforceable.* *Notwithstanding this, the Applicant has included several mechanisms and measures for cumulative effects to be managed by the undertaker and directly by local authorities:* • *Local highways authorities are able to manage cumulative effects through their permitting schemes for street works and traffic management, which the Applicant has included new drafting in its DCO to clarify. A primary purpose of these schemes is for highways authorities to be able to sequence traffic works within their broader area.* • *More broadly, the **Framework CTMP [EN010142/APP/7.11(Rev04)** includes consideration and management for cumulative effects, For example sections 7.1, 7.2 and 8.5 include specific provisions to require engagement with local authorities in respect of the timing of works and their sequencing between projects. The relevant planning authorities generally are required to review and approve the final plans prior to construction commencing, and in doing so could require the Applicant and other solar developers to better manage cumulative effects if they do not consider the existing plans appropriately address these.* • *Related to the above, the Applicant responded to comments made within WLDC's LIR on the **Framework CTMP [EN010142/APP/7.11(Rev04)** and its management of cumulative effects at paragraph 9.34 within **Applicant's Response to the Local Impact Report [REP3-061]**. This confirmed, as demonstrated within **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev02)]**, there would not be a significant adverse cumulative impact in transport terms, in the extremely unlikely event that the peaks of the four cumulative projects occur at the same time. Thus, there are no significant impacts requiring additional measures beyond what is already set out in the ES and existing **Framework CTMP [EN010142/APP/7.11(Rev04)** to control

ExQ2	Questions to:	Question:	Applicant's Response:
			cumulative impacts, and the Applicant does not agree that additional controls are required to align the projects and their management of construction traffic. • *If granted, the final Scheme must be constructed in accordance with the effects assessed for the Application. If it is considered that the effects are worse than those assessed, the Scheme will be required to ensure these are managed such that they are brought in line with the assessment, including in respect of cumulative impacts. The Applicant would need to confirm effects are no worse than those assessed in the Environmental Statement as part of the process for discharge of any requirements, pursuant to Schedule 17 of the* ***draft DCO [EN010142/APP/3.1(Rev05)]****."* *Notwithstanding this, as set out in the* ***Statement of Common Ground with Other Solar Developers [REP1-037]****, the four solar projects are currently in discussions regarding a further cooperation agreement. While the scope and content of this further agreement are still under discussion, it will likely relate to (amongst other things) how the four projects will work together in the discharge of their respective DCO requirements. This could include, for example, the preparation and approval of a Joint CTMP – if all parties elect to do so and this is compatible with detailed design. The* ***Framework CTMP [EN010142/APP/7.11(Rev04)]*** *specifically refers to the proposal to prepare a Joint CTMP between the four projects (see paragraph 1.3.4)."*
Q2.13.5	WLDC	**FCTMP** The applicant's response to Q1.13.12 [REP3-062] is noted. However, many of these comments appear to relate to other projects. It is understood that the Council has concerns with regard to the need for a co-ordinated approach to construction. WLDCs response refers to the need for 'designation of a single co-ordinator to manage construction traffic for each project.' However, in practice does the Council consider that this can be achieved and enforced bearing in mind the content of the CTMPs and DCOs for other consented projects (Gate Burton, Cottam and West Burton)?	No response from Applicant required.
Q2.13.6	Applicant and LCC	**NPS EN-3** Could the applicant and LCC please confirm whether the potential mitigation measures set out under NPS EN-3 paragraphs 2.10.139 to 2.10.144 have been explored? Please also confirm whether such measures are necessary in this instance?	The Applicant has considered the potential mitigation measures set out in NPS EN-3, with comments provided against each as follows: *2.10.139 In some cases, the local highway authority may request that the Secretary of State impose controls on the number of vehicle movements to and from the solar farm site in a specified period during its construction and, possibly, on the routeing of such movements particularly by heavy vehicles.* *2.10.140 Where the Secretary of State agrees that this is necessary, requirements could be imposed on development consent.* The **Framework CTMP [EN010142/APP/7.11(Rev05)]** includes multiple measures which will have the effect of controlling vehicle numbers and routing at specified times. This includes HGV and abnormal loads routes being defined and controlled as per Figures 1 and 2 of the Framework CTMP. Staff travel is controlled by the shift patterns being secured by the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, meaning that staff travel occurs at off peak periods, i.e. 0600-0700 hours and 1900-2000 hours. Staff travel measures and controls are set out in 8.2.31 to 8.2.46 of the **Framework CTMP [EN010142/APP/7.11(Rev05)]**, and include a cap on staff parking, car share measures and shuttle buses.

ExQ2	Questions to:	Question:	Applicant's Response:

Controls on HGV and LGV timing is set out in 8.2.10 of the **Framework CTMP [EN010142/APP/7.11(Rev05)]**.

These measures provide suitable controls to the number of vehicle movements and their routeing. A robust assessment has been undertaken of the level of trips that will result, and the impact of those trips. Notwithstanding the response to Q2.13.11 below, this has shown that no significant transport effects would arise, with the embedded mitigation set out in the **Framework CTMP [EN010142/APP/7.11(Rev05)]** in place. Therefore the Applicant's position is that the proposed controls meet the requirements of 2.10.139 and no further controls would be necessary.

2.10.141 Where cumulative effects on the local road network or residential amenity are predicted from multiple solar farm developments, it may be appropriate for applicants for various projects to work together to ensure that the number of abnormal loads and deliveries are minimised, and the timings of deliveries are managed and coordinated to ensure that disruption to residents and other highway users is reasonably minimised.

Chapter 18: Cumulative Effects and Interactions of the ES **[EN010142/APP/6.1(Rev03)]** has demonstrated that no significant cumulative transport effects would be predicted from multiple solar farm developments. Therefore 2.10.141 does not apply. Notwithstanding this, the Applicant has worked closely with the applicants for the other schemes with the aim of minimising cumulative impacts and disruption to residents and other highway users. The Applicant has included several mechanisms and measures for cumulative effects to be managed by the undertaker and directly by local authorities. These are described above in response to Q2.13.4.

2.10.142 It may also be appropriate for the highway authority to set limits for, and coordinate these deliveries through, active management of the delivery schedules through the abnormal load approval process.

Whilst this is a point for LCC to respond to, the Applicant considers that it would be reasonable for LCC to actively manage delivery schedules through the abnormal load approval process. As is set out in 5.6.2 of the **Framework CTMP [EN010142/APP/7.11(Rev05)]**, the Applicant will consult with the relevant highways authorities to ensure that correct permits are obtained.

2.10.143 Once consent for a scheme has been granted, applicants should liaise with the relevant local highway authority (or other coordinating body) regarding the start of construction and the broad timing of deliveries. Applicants may need to agree a planning obligation to secure appropriate measures, including restoration of roads and verges.

The Applicant will liaise with the LHA regarding the start of construction and broad timing of deliveries, along with a full suite of highways matters relating to the construction of the Scheme, as set out in the **Framework CTMP [EN010142/APP/7.11(Rev05)]**. Requirement 14 of the **draft DCO [EN010142/APP/3.1(Rev06)]** requires the submission and approval of a construction traffic management plan (CTMP) prior to the commencement of the authorised development. The CTMP must be substantially in accordance with the **Framework CTMP [EN010142/APP/7.11(Rev05)]**. Before approving the CTMP, the relevant planning

ExQ2	Questions to:	Question:	Applicant's Response:
			authority must consult with the relevant highway authority. All construction must be carried out in accordance with the approved CTMP. *2.10.144 Further, it may be appropriate for any non-permanent highway improvements carried out for the development (such as temporary road widening) to be made available for use by other subsequent solar farm developments.* The Applicant and the applicants of the other solar schemes are committed to investigating opportunities to minimise cumulative disruption of the schemes. Part of this work is the Joint Cable Route Corridor. This will enable temporary cable access works to be utilised by each scheme prior to re-instatement, minimising disruption. Thus, the Applicant has considered the potential measures in NPS EN-3 paragraphs 2.10.139 to 2.10.144. A number of the potential measures are proposed as part of the Scheme, and no further measures are considered to be necessary in this instance.
Q2.13.7	Applicant	**NCC LIR** Could the applicant please provide a response to the recommendations outlined in paragraphs 5.41 and 6.1 (table 2) of Nottinghamshire County Council's LIR [REP1A-002]?	The Applicant previously responded to NCC's LIR in the **Applicant's Response to Local Impact Reports [REP3-061]** and specifically responded to the points raised at 5.41 and 6.1 of NCC's LIR at page 139 – 143 of that document, and directs the Examining Authority to that response. In respect of an update as to how matters have progressed since that response: • All matters in relation to transport (including all of those relating to 5.41 and 6.1 have now been agreed with NCC, as demonstrated by the **Statement of Common Ground with NCC [EN010142/APP/9.1(Rev03)]**. • This reflects a number of meetings held between the NCC, LCC and the Applicant, as reflected in the LIR response document. These meetings confirmed the basis for the questions raised by NCC's highways team in its LIR was generally to seek clarification on how the DCO powers impact or interact with their typical highways / permitting powers. The parties agreed the DCO powers were appropriate in those meetings, and any interaction would be managed by the **Framework CTMP [EN010142/APP/7.11(Rev05)]** and DCO provisions. • The Applicant made a number of changes to the **Framework CTMP [EN010142/APP/7.11(Rev05)]** at Deadline 3 to explicitly provide for liaison between the undertaker, NCC and LCC in respect of their highways and permitting approvals. The Applicant also added the new Article 8A at to the **draft DCO [EN010142/APP/3.1(Rev06)]** at Deadline 4 to manage the interaction of the DCO streetworks articles with the highways authorities' permitting schemes. NCC and LCC have confirmed they support these changes.
Q2.13.8	WLDC	**Potentially Sensitive Receptors** Paragraph 9.11 of WLDCs LIR [REP1A-005] asserts that no data is provided regarding the potentially sensitive receptors within the Study Area. Could the Council please expand on this point and explain whether it is alluding to anything in particular when it refers to 'sensitive receptors'?	No response from Applicant required.
Q2.13.9	WLDC	**WLDC LIR**	No response from Applicant required.

ExQ2	Questions to:	Question:	Applicant's Response:
		Please could the Council provide a response to the applicant's responses to the WLDC LIR [REP3-061] in relation to Transport and Access?	
Q2.13.10	Applicant	**Aviation** Chapter 17: Other Environmental Topics of the ES [APP-048] has undertaken an assessment of potential impacts of glint and glare on surrounding road users, railway operations, dwellings, PRoW, bridleways and aviation activity. "*It concludes that there would be no impacts on residential receptors or road receptors, and low (not significant) impacts on aviation receptors on Runway 27 at Sturgate Airfield, which is acceptable*." Given the representation received [RR-002] from A Pilot can the applicant please describe the risks that might be presented to aviators from glint and glare when approaching Runway 27 at Sturgate Airfield?	The Applicant provided information on this within a post-hearing note within the **Written Summary of Applicant's Oral Submissions at the Issue Specific Hearing 3 (ISH3) [REP4-049]**. This is provided below for ease of reference. *"An assessment of glint and glare impacts on aviation receptors is reported within **Appendix 17-2: Glint and Glare Assessment** of the ES **[APP-120]** and summarised within **Chapter 17: Other Environmental Topics of the ES [APP-048]**. As outlined within the British Research Establishment (BRE) document 'Planning Guidance for the Development of Large-Scale Ground Mounted Solar PV Systems' (Ref. 1-12), solar PV panels are designed to absorb, not reflect, irradiation. The intensity of any reflections is similar to that emanating from still water, which is considerably lower than for other manmade materials such as glass, steel or white concrete (Ref. 1-13).* *Eight runway approach paths and two Air Traffic Control Towers were assessed in detail at Sturgate Airfield, RAF Scampton and Wickenby Airfield. Only green glare impacts, i.e. those predicted with a low potential for temporary after-image, were predicted for pilots using Runway 27 at Sturgate Airfield, which is an acceptable impact upon runways according to the US Federal Aviation Authority (FAA) guidance (Ref. 1-14). Green glare does not cause temporary flash blindness and happens at an instant with very slight disturbance. As per FAA guidelines, mitigation is only required for green glare when affecting an Air Traffic Control Tower, but not for when affecting pilots. Overall, aviation impacts were therefore assessed as low (not significant). As such, it is not considered likely that the Scheme would lead to major accidents for aircraft flying locally, and it follows that any effects on health potentially resulting from any such accidents are considered equally unlikely."*
Q2.13.11	Applicant	**ATC 23** The applicant's response to WLDCs LIR [REP3-0061 pages 98-99] states in part: '*Whilst the level of HGVs increases on ATC23, there are multiple factors which contribute to perception of fear and intimidation. These include the total volume of traffic, vehicle speed and width of pavements, as set out in paragraphs 3.33 of the IEMA Guidelines (Ref 1-22) and in the associated comments within the Local Impact Report. Overall, it was assessed that there would be a negligible change in fear and intimidation levels at ATC23, based on the IEMA Guidelines, and therefore the effect is not significant. However, it is important to recognise that Chapter 16: Transport and Access of the ES [APP047] has highlighted that there will be a significant adverse effect on NMUs at this location.'* Despite significant adverse effects being identified at ATC 23 (near a primary school), it appears that the applicant only intends to rely on the broad and all-encompassing mitigation	The detailed assessment of the impact on ATC23 is set out in 16.8.17 (i) of **Chapter 16: Transport and Access** of the ES **[APP-045]**. This sets out the key aspects of the findings, as well as the robustness of the assessment. It is important to note that, due to the embedded mitigation of construction scheduling controlling staff travel time, traffic levels at development peaks will remain substantially lower than at existing network peaks. The impact will only occur for the brief duration of cable construction, and only if construction activity on the Cable Route Corridor is concentrated on the area with multiple cable route sites accessed via the B1241. In the case of ATC23, this magnitude of effect would only occur if four of the cable route access routes using the B1241 were in use at the same time. As stated, overlapping of such works would be for a very short period. The sensitivity of ATC23 accounts for the existence of the primary school, and it is noted that this school appears to be the main concern of WLDC and this question. Development traffic peaks do not coincide with school pick up and drop off times, and therefore the impact of staff travel on users of the school would likely be negligible. However, it is noted that deliveries would occur throughout the day, albeit avoiding highway network peaks. The **Framework CTMP [EN010142/APP/7.11(Rev05)]** sets the principles for management measures to be applied and finalised through the Detailed CTMP to be agreed with the LPAs post-DCO and prior to construction. The measures within the Framework CTMP are broad and all encompassing, and ensure that

ExQ2	Questions to:	Question:	Applicant's Response:
		which would be provided through implementation of the FCTMP. However, the ExA is not satisfied with this approach, regardless of whether the effects will only last for 'several weeks'. As such, could the applicant please update the FCTMP to include specific and targeted mitigation and management measures in respect of this location?	both the impact as assessed will not be exceeded, and that appropriate mitigation will be delivered. These measures can be relied upon in relation to impacts of construction traffic, including at ATC23. It is the Applicant's position that the limited and temporary nature of the effects on ATC23, combined with the low likelihood of occurrence, and the comprehensiveness of the **Framework CTMP** [**EN010142/APP/7.11(Rev05)]**, means that no further mitigation should be necessary. Notwithstanding this, and to ensure the ExA's concerns are fully addressed, the Applicant has proposed a combination of the following mitigation options to explicitly address any impacts at ATC23, which have been included in the **Framework CTMP** [**EN010142/APP/7.11(Rev05)]** for submission at Deadline 5: • Place a limit on the number of Cable Route Corridor sites accessed via the B1241 at any given time. Limiting the number of B1241 accesses in use at any given time from four to two would reduce the magnitude of traffic impact to a minor adverse impact rather than a moderate adverse impact, and therefore not significant. This has been added to the **Framework CTMP [EN010142/APP/7.11(Rev05)]** at paragraph 8.2.14. • Amend HGV delivery restrictions where they apply to the B1241 to avoid school pick up and drop off times, rather than network peak times. This has been added to the **Framework CTMP [EN010142/APP/7.11(Rev05)]** at paragraph 8.2.11 • Increased community liaison to ensure that the community is aware of the timing and duration of construction activities. This has been added to the **Framework CTMP [EN010142/APP/7.11(Rev05)]** at paragraph 8.2.15.

15. Water environment including flood risk

Table 15-1: Water environment including flood risk

ExQ2	Questions to:	Question:	Applicant's Response:
Q2.14.1	Applicant EA	**Reservoir Flood Risk** The Applicants previous replies indicate that the reservoir used adjacent to the proposed development is for the storage of digestate for an agricultural business. Can the Applicant advise if the potential for breach of this reservoir has been considered within their flood risk assessment and the likely consequence should this to occur?	**Table 3-2**, page 29 of **Appendix 10-3: Flood Risk Assessment (FRA)** of the ES **[REP4-018]** discusses the digestion pit adjacent to Field 59, indicating a size of approximately 100m x 100m size and up to 2.0m deep above existing ground level. A pit of this nature needs to be maintained in accordance with the Environmental Permitting Regulations 2016 (Ref 1-26). The FRA notes that the digestion pit is assumed to be in good working order and any embankments are monitored and maintained in good condition, to comply with the Environmental Permitting Regulations 2016. The digestion pit has been appropriately assessed within **Table 3-2**, and Section 4, **Table 4-1** of the FRA with a low residual risk.
Q2.14.2	LCC LLFA	**Pluvial Flood Risk** Please can LCC, as LLFA and as the organisation responsible for taking the lead on surface water and groundwater risk, advise as to the potential behavioural change in surface water risk over the development and cumulatively based on the similar behaviour of adjacent NSIPs. In addition, what does the LLFA consider the impact of this change in infiltration rates to be upon the local groundwater table?	No response required from the Applicant.

16. Other planning matters

Table 16-1: Other planning matters

ExQ2	Questions to:	Question:	Applicant's Response:
Air Quality			
Q2.15.1	Applicant	**Unplanned Emissions** In response to Q1.15.4 [REP3-062] the applicant states in part: *'The occurrence of a fire is theoretically foreseeable but is not likely to occur during the operational lifetime of the Scheme and therefore it is not meaningful to assess the impacts or a fire against air quality criteria intended to assess exposure to planned emissions'* However, during ISH2 there was discussion with regard to the number of likely fire events occurring as a result of the BESS. Please could the applicant therefore update this response based on that discussion and the number of fires which are likely to occur over the operational lifetime of the development?	As discussed by Mr Gregory during ISH3 (refer to **Written Summary of Applicant's Oral Submissions at the Issue Specific Hearing 3 [REP4-049]**), with further clarification provided in the Applicant's response to Q2.8.2 in this document, the probability of a BESS cell failure event resulting in a venting / burning thermal runaway scenario is very low. Assuming a 2GWh site such as Tillbridge would incorporate 400 x 5MWh BESS enclosures, the likelihood of a single BESS enclosure failure is approximately once every 7,700 years. Section 7.5 (Early Intervention of Thermal Runaway Prevention) of the **FBSMP [REP4-026]** details the Applicant's commitment to adopting new key safety standards, which combined with the stipulated essential monitoring and control features which will likely further reduce the probability of a BESS failure occurring. As such, given the above likelihoods (i.e. one incident per several thousand years of operation) versus the operational lifetime of the Scheme (60 years), it is considered the response provided to Q1.5.4 within **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** remains valid.
Minerals and waste			
Q2.15.2	Applicant	**Waste Topic Paper** Could the applicant please provide a response to LCC's response to Q1.15.5 [REP3-065]?	The Applicant provided a response to LCC's response to Q1.15.5 on page 25 of the **Applicant's Comments on Interested Parties' Submissions to First Written Questions at Deadline 3** submitted at Deadline 4 **[REP4-048]**. This is provided below for ease of reference. *"The Applicant notes that the scenario of no waste management facilities being available across the whole of England and East Midlands for recycling waste streams from the Scheme is unrealistic and considers the 70% recovery from landfill being the realistic worst-case scenario. However, the Applicant agrees that waste management will be kept under review throughout operation and decommissioning. This will be documented as part of periodic reviews of the detailed OEMP throughout operation, as set out within Section 2.7 and **Table 3-16** of the **Framework OEMP [EN010142/APP/7.9(Rev03)]**, and before decommissioning commences in the Decommissioning Resource Management Plan (DRMP), as set out within Section 2.10 and **Table 3-15** of the **Framework DEMP [REP3-037]**."*
Q2.15.3	Applicant	**Minerals and Waste** Could the applicant please provide a response to WLDC's response to Q1.15.6 [REP3-066]?	The Applicant provided a response to WLDC's response to Q1.15.6 on page 33 of the **Applicant's Comments on Interested Parties' Submissions to First Written Questions at Deadline 3** submitted at Deadline 4 **[REP4-048]**. This is provided below for ease of reference. *"The control mechanisms for the replacement of various solar infrastructure components during the operational phase of the Scheme are explained within Section 2.3 of the **Framework OEMP [EN010142/APP/7.9(Rev03)]**. Furthermore, as set out within **Table 3-16** of the **Framework OEMP [EN010142/APP/7.9(Rev03)]**, the waste hierarchy will be applied during the replacement of any infrastructure. **Table 3-16** of the **Framework OEMP [EN010142/APP/7.9(Rev03)]** commits to 70% diversion of waste from landfill. Waste management will be kept under review throughout operation and decommissioning. This will be documented as periodic reviews of the detailed OEMP through operation, as*

ExQ2	Questions to:	Question:	Applicant's Response:
			*set out within Section 2.7 and **Table 3-16** of the **Framework OEMP [EN010142/APP/7.9(Rev03)]**, and before decommissioning commences in the Decommissioning Resource Management Plan (DRMP), as set out within Section 2.10 and **Table 3-15** of the **Framework DEMP [REP3-037]**.* *Further clarification on the waste cumulative impact assessment was provided within Appendix A to the **Applicant's Response to Relevant Representations [REP1-028]**, which included the consideration of a scenario where no waste management infrastructure is available. Although, the Applicant notes that the scenario of no waste management facilities being available across the whole of England and East Midlands for recycling waste streams from the Scheme is unrealistic and considers the 70% recovery from landfill being the realistic worst-case scenario.* *The study area for non-hazardous waste management is the East Midlands, the study area for hazardous waste management is England. Further information is provided in the **Applicant's Response to Relevant Representations [REP1-028]** (in response to the Environment Agency on pages 43-44) and within Appendix A of the **Applicant's Response to Relevant Representations [REP1-028]**."*
Other			
Q2.15.4	Applicant	**PoC** Could the applicant please provide a response to WLDC's response to Q1.15.9 {REP3-066]?	The Applicant provided a response to WLDC's response to Q1.15.9 on page 33 and 34 of the **Applicant's Comments on Interested Parties' Submissions to First Written Questions at Deadline 3** submitted at Deadline 4 **[REP4-048]**. This is provided below for ease of reference. *"As set out in paragraph 3.1.4 to 3.1.7 of the **Applicant's Grid Connection Statement [APP-214]**, NGET has confirmed that an existing spare bay within the National Grid Cottam Substation is currently available. Works will be required as part of the Scheme to facilitate connection to the National Grid Cottam Substation and will be undertaken by the Applicant and National Grid. These works would mainly comprise electrical works to provide connection and protection of electrical infrastructure.* *National Grid will provide a skeleton bay at the National Grid Cottam Substation and will carry out the substation control modification work and bus bar protection required to enable the Applicant to connect.* *The Applicant will carry out all works required to take the Scheme up to the bay at the National Grid Cottam Substation. This includes work to construct the section of the Cable Route Corridor within the National Grid Cottam Substation site, works to build, equip and commission the bay at the National Grid Cottam Substation, and the installation of a system to monitor the power exported to the transmission system.* *The works required to facilitate connection undertaken by the Applicant would be under the Applicant's control and works undertaken by National Grid would be under National Grid's control.* *The Environmental Statement carried out by the Applicant has considered all of the above works within its assessment of effects. Schedule 1, Work No. 5 of the **draft DCO [EN010142/APP/3.1(Rev05)]** also authorises these works."*
Q2.15.5	Applicant	**Planning Applications/Permissions** Please could the applicant provide a response to the implications of the alleged permissions cited in REP4-109.	The Applicant provided a full and detailed response in relation to the implications of the Scheme upon the implementation of agricultural barns following the granting of full planning permission (LPA Ref no. 145882) on the 18 January 2023 on pages 235 to 237 of the **Applicant's Response to Relevant Representations**

ExQ2	Questions to:	Question:	Applicant's Response:

[REP1-028]. This confirmed that the Order limits for the Scheme are sufficient to provide four trenchless crossings under the A156 High Street for all solar developments avoiding conflicts with the proposed agricultural barns and allowing sufficient space to the north and south of the proposed barns for the laying of cables.

The **Written Summary of the Applicant's Oral Submissions at Compulsory Acquisition Hearing 1** [**REP4-047]** sets out under Item 3c on pages 8 and 9 site specific matters referred to in **REP4-109**, which the ExA should consider in conjunction with the Applicant's response to this question (Q2.15.5). This confirms that no robust evidence has been submitted demonstrating that the Scheme will have an unacceptable impact on the viability of the farming business and that any arguments relating to this matter relates to compensation.

Planning status of the alleged permissions

The Scheme proposes a trenchless crossing in this location which would not materially impact on the land owner exercising permitted development rights (PDRs) to erect agricultural buildings under the deemed consent due to the proposed cables being underground. The design of the crossing approach would mean, where necessary, it would avoid interference with the foundations for any agricultural buildings, if already constructed.

It is also noted that since the site adjoins the A156 (classified road) that in accordance with Schedule 2, Part 6, Class A, A.1 (h) of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (Ref 1-29) that full planning permission would be required for any development within 25 metres of the classified road. This means that for any land within 25 metres of the A156, that this land does not benefit from deemed consent afforded by PDRs and as such, is constrained.

In addition, any development set out by Schedule 2, Part 6 (Agricultural and Forestry), Class A, of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (Ref 1-29) requires that an application is made to the local planning authority to determine whether prior approval will be required for the siting, design, and external appearance of the building, the siting and means of construction of the private way and the siting of the excavation or deposit. Development is not permitted until either the local planning authority confirms that prior approval is not required, that the local planning authority confirms that prior approval is required or following the expiry of 28 days from when the application was received within the local planning authority making any determination as to whether prior approval is required.

In view of the above, the Applicant considers the land is still constrained and does not benefit from full deemed consent afforded by PDRs as alleged in REP4-109. Some restrictions (25m within a classified road) and prior approval are still required to be overcome before development can commence.

The Applicant notes the submission of two prior approval applications to WLDC for the erection of a machinery barn and a storage building (LPA Ref: WL/2025/00063 & WL/2025/00064). Both applications are accompanied by a written description of the proposed development and a site layout plan showing the proposed siting of barns in relation to the approved barns (LPA Ref no. 145882). The local planning

ExQ2	Questions to:	Question:	Applicant's Response:

authority has considered both applications (LPA Ref: WL/2025/00063 & WL/2025/00064). confirming on the 14 February 2025 that prior approval was not required for the development.

These applications were submitted to the local planning authority on the 21 January 2025 following the CAH1 on the 16 January 2025. The applications have been made in the full knowledge that the Compulsory Acquisition case has been made and succeeded for three other consented schemes (Gate Burton Energy Park, Cottam Solar Project and the West Burton Solar Project) that share a similar cable route corridor in the absence of additional development beyond the approved full planning permission for the erection of two agricultural barns (LPA Ref no. 145882).

Confirmation by WLDC, as local planning authority, that prior approval is not required for the agricultural buildings subject to LPA Ref: WL/2025/00063 & WL/2025/00064 does mean that these buildings can now be constructed utilising PDRs as set out Schedule 2, Part 6 (Agricultural and Forestry), Class A, of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (Ref 1-29) subject to the buildings being erected in accordance with the submitted plans.

Actual impacts of cable routing on site / barns

Irrespective of confirmation from WLDC that prior approval is not required for the agricultural buildings (LPA Ref: WL/2025/00063 & WL/2025/00064), along with extant planning permission (LPA Ref no. 145882), all schemes can be implemented and coexist with the proposed cable for the Scheme and the cables associated with the other solar developments within the shared cable route corridor.

As illustrated in **Figure 3.11: Indicative Cable Route Corridor Trenched and Trenchless Crossing Locations [APP-140]** of the ES, a trenchless crossing is shown in this location (T15 to cross under the A156 – High Street). The application seeks flexibility with respect to the type of trenchless crossing that could be utilised at the detailed design stage with design principles set out on pages 12-13 of the **Outline Design Principles Statement [REP4-020].** The detailed design will need to be in accordance with the principles set out in the ODPS and is secured by Requirement 5 of the **dDCO [EN010142/APP/3.1(Rev06)].**

With regards to technical feasibility, the siting of the cable for this Scheme remains feasible alongside the other solar developments through plot 19-09 as shown on Sheet 19 of 24 of the **Land and Crown Plans [AS-040]** as a trenchless crossing irrespective of the developments proposed in this location. Article 23, Schedule 9 of the **dDCO [EN010142/APP/3.1(Rev06)]** sets out details of land in which new rights may be acquired. This includes 'cable rights' over land including plot 19-09 shown on page 82 of the **dDCO [EN010142/APP/3.1(Rev06)].**

At the detailed design stage, the Applicant would firstly seek to secure a design option that avoided the proposed agricultural buildings where practicable. However, there may be a need for the cables to run underneath the proposed barns. Annex A of the **Statement of Reasons [REP2-022]** sets out the rules pertaining to the determination of the cable route corridor width. This confirms on page 71 of the need for a permanent easement of 10m to allow for future access should maintenance be required. Plot 19-09 as shown on Sheet 19 of 24 of the **Land and Crown Plans [AS-040]** seeks that new rights are compulsory acquired and restrictive covenants imposed and that land can be possessed temporarily to deliver the Scheme.

ExQ2	Questions to:	Question:	Applicant's Response:
			The applicant would seek a build over agreement to ensure the cable can run underneath any agricultural barns should this be required to ensure there is no conflict between the Tillbridge Solar Project NSIP cable circuit requirement and the agricultural development in the area. **REP4-109** has indicated a preference for a wayleave or lease agreement as opposed to an easement agreement. The Applicant believes an easement to be the most appropriate method securing statutory access agreement to maintain the Tillbridge cable route circuits throughout the 60-year lifecycle of the Scheme. A wayleave agreement or lease does not provide the same certainty or security for the Applicant should a termination be sought or change of land ownership occur. Fin response to ExQ2.1.10 sets out the Compulsory Acquisition position with respect to plot 19-09 as shown on Sheet 19 of 24 of the **Land and Crown Plans [AS-040]** from each ExA and the Secretary of State in relation to the other consented solar developments (Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project). Each decision confirms that the land is required for a legitimate purpose and that the powers sought are necessary and proportionate and that there is a compelling case in the public interest for the proposed acquisition of new rights affecting this land. With respect to the West Burton Solar Project, the ExA concluded at paragraph 6.6.24 of the recommendation report: "*Matters relating to the consented barns should therefore be addressed through compensation provisions.*" In short, the Applicant has demonstrated that the land falling within Plot 19-09 as shown on Sheet 19 of 24 of the **Land and Crown Plans [AS-040]** is required for the development to which the DCO relates and that there is a compelling case in the public interest for the inclusion of powers of compulsory acquisition in the DCO. The public benefits from the compulsory acquisition will outweigh the private loss suffered by those whose land is to be acquired. The powers sought satisfy the conditions set out in s122 and s123 of the PA 2008. The Applicant sets out this case in full in Section 5 of the **Statement of Reasons [REP2-022].** Further, this position has been ratified by the Secretary of State three times previously in relation to the same land for other solar developments that share the same cable route corridor. The most recent applications seeking prior approval for the erection of further agricultural barns on this land does not change this position. The Applicant has sought to reach voluntary agreement on this matter since May 2023 as set out within the **Schedule of Negotiations and Powers Sought [EN010142/APP/4.4/(Rev04)].** The Applicant does not consider that the Scheme will infringe the ability to develop the land as an agricultural business for those reasons given with all Schemes being able to coexist.

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Tillbridge Solar

Tillbridge Solar Project
EN010142

Appendix A – Applicants Response to ExQ2.1.4

Document Reference: EN010142/APP/9.35

Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010

February 2025
Revision Number: 00

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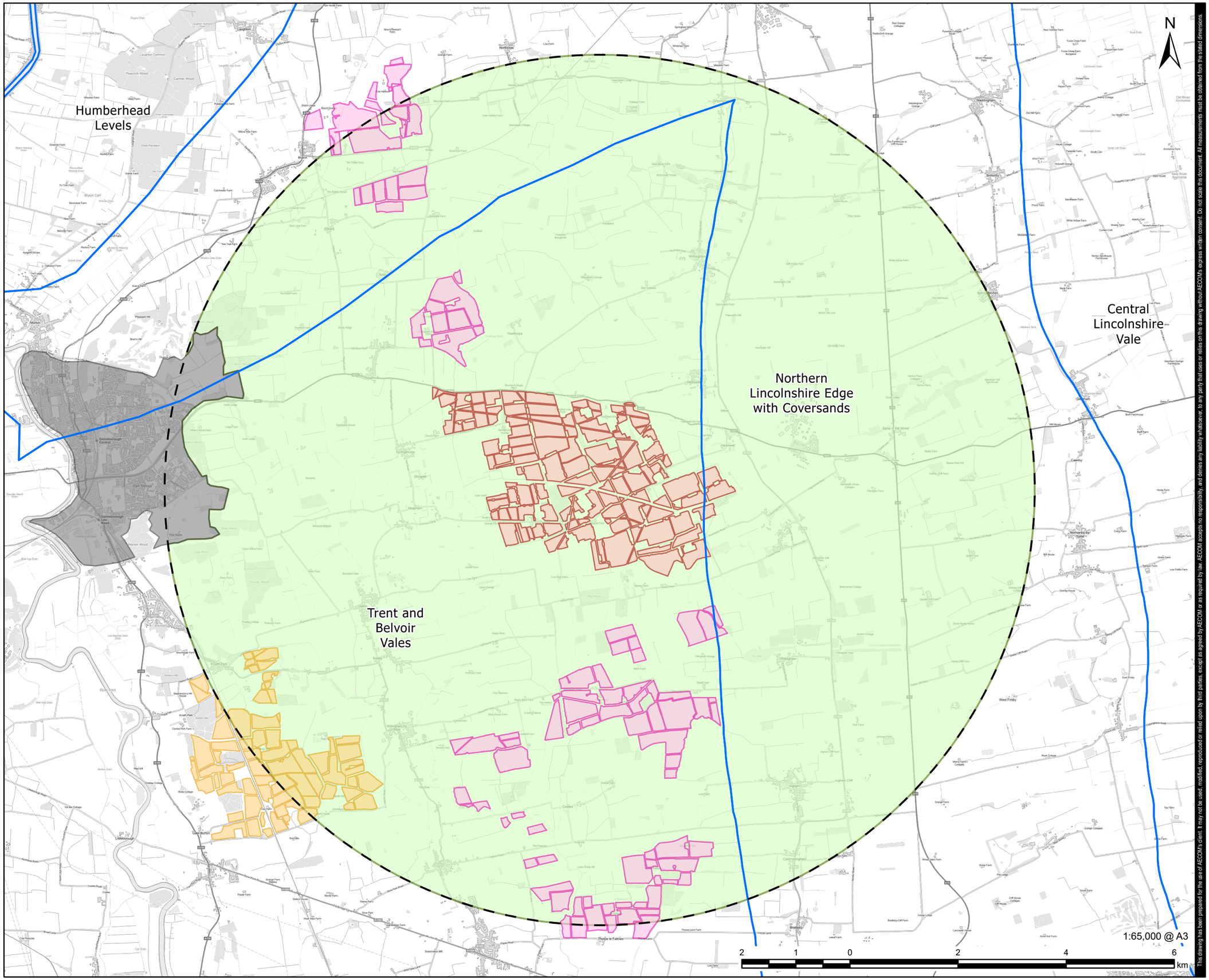
Revision: 0 Drawn: LL Checked: HW Approved: CR Date: 2025-02-18



AECOM

PROJECT

Tillbridge Solar Project

CLIENT

Tillbridge Solar Ltd

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LEGEND

- Tillbridge Solar Project Order limits Centroid - 5 Mile Buffer
- National Landscape Character Area
- Rural Area
- Urban Area
- Tillbridge Solar Project - Solar PV area
- Cottam Solar Project - Solar PV area
- Gate Burton Solar Project - Solar PV area

NOTES

ISSUE PURPOSE

DCO Submission

PROJECT NUMBER

60682158

FIGURE TITLE

Applicant's Response to ExQ2.1.4 – land within a 5 mile radius of the Principal Site

FIGURE NUMBER

Appendix A - Applicant's Response to ExQ2.1.4

Table 1: Rural, urban and solar PV within a 5-mile radius of Principal Site[1]

Land Classification and Scheme	Planning Inspectorate Reference	Hectares	Development Status	Percentage
Area of Urban Land				
Total Area of Urban Land (Gainsborough) within 5-mile radius of Principal Site		**270.58**		**1.33%**
Area of Rural Land				
Total Area of Rural Land within 5 Mile radius of Principal Site		**18287.92**		**89.91%**
Area of Solar PV				
Cottam Solar Project	EN010133	798.71	Development consent granted	

[1] There are no solar farms consented under the Town and Country Planning Act (1990) within a 5-mile radius of the Principal Site

Land Classification and Scheme	Planning Inspectorate Reference	Hectares	Development Status	Percentage
Gate Burton Energy Park	EN010131	244.61	Development consent granted	
Tillbridge Solar Project	EN010142	739.56	Examination	
Total Area of Solar PV within 5-mile radius of the Principal Site		**1782.88**		**8.76%**
Total		**20341.38**		

Tillbridge Solar

Tillbridge Solar Project
EN010142

Appendix B – Applicant's Response to ExQ2.1.7

Document Reference: EN010142/APP/9.35

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Table of Contents

Tables

1. Introduction

1.1.1 This document provides the Applicant's response to the Examining Authority's 2nd Written Question number Q2.1.7.

2. Examining Authority's Question 2.1.7

Mitigation Hierarchy

Could the applicant please provide a table (with ES section and / or paragraph references) which sets out how the mitigation hierarchy – as described in NPS EN-1 – has been applied to the development? If there is an absence of the requisite information in the ES, then could the relevant chapters please be updated to address the mitigation hierarchy?

3. Applicant's Response

3.1.1 **Table 3-1** to **Table 3-3** below provide a summary of how the mitigation hierarchy has been implemented for the Scheme, after the site selection process, described in **Chapter 4: Alternatives and Design Evolution** of the Environmental Statement (ES) **[APP-035]**, concluded with the current location of the Principal Site and Cable Route Corridor.

3.1.2 For reference, the National Policy Statement (NPS) EN-1 (Ref 1-1) defines mitigation hierarchy as '*a term to incorporate the **avoid**, **reduce**, **mitigate** and **compensate** process that applicants need to go through to protect the environment and biodiversity*'. **Table 3-1** to **Table 3-3** relate these terms to the measures referenced within the ES chapters and provide relevant cross-references.

Table 3-1: Application of Mitigation Hierarchy – Measures to Avoid Impacts

Topic	Measure	ES Reference
Chapter 8: Cultural Heritage [APP-039]	Appropriate setbacks have been incorporated into the Scheme design and as part of drawing the Order limits, with buffer areas included around non-designated historic farmsteads within the Principal Site to ensure they are excluded from the Scheme, although they may still incur setting impacts. These buffers vary from around 30m (where existing dense screening is in place) or more generally a minimum of 50m up to around 300m.	**Chapter 8: Cultural Heritage [APP-039]** – Paragraph 8.8.6
	Changing the Order limits in the north-eastern corner of the Principal Site, removing two fields completely from the Scheme to avoid impacts upon the scheduled monument Harpswell Hall.	**Chapter 8: Cultural Heritage [APP-039]** – Paragraph 8.8.7
	Establishment of 26 Sensitive Archaeological Sites within the Principal Site, which have been excluded from development and photovoltaic panels to preserve archaeological remains. The Sensitive Archaeological Sites are secured by Work No. 11 of Schedule 1 of the **draft DCO [EN010142/APP/3.1(Rev06)]**. Each Sensitive Archaeological Site has been defined to include a sufficient buffer to avoid impacts to the buried archaeological remains or extant earthworks.	**Chapter 8: Cultural Heritage [APP-039]** – Paragraph 8.8.8
	As set out within the **Framework Construction Environmental Management Plan** (CEMP) **[EN010142/APP/7.8(Rev03)]**, embedded mitigation within the Cable Route Corridor includes: • A 20m buffer zone in which no construction activity will take place will be established along the northern side of the Fleet Plantation scheduled monument; • The use of Horizontal Directional Drilling (HDD) to install the high-voltage (HV) cables rather than open cut trenching for the avoidance/preservation of buried peat deposits of potential Neolithic date within the floodplain of the River Trent; and • The use of trenchless crossing rather than open cut trenching to avoid impacts to the extensive complex of Iron Age and Romano-British enclosures, field system and trackway east of Cow Pasture Lane, Cottam.	**Chapter 8: Cultural Heritage [APP-039]** – Paragraph 8.8.11

Topic	Measure	ES Reference
Chapter 9: Ecology and Nature Conservation [APP-040]	The Scheme design has evolved to avoid all sites statutorily designated for their biodiversity importance and to avoid or minimise impacts on sites that are non-statutorily designated for their biodiversity importance. Measures embedded within the Scheme design will ensure that designated sites are not adversely impacted during construction, operation or decommissioning e.g., through siting construction routes away from designated sites, incorporating suitable buffer zones and erection of temporary construction fencing to avoid incursion into exclusion zones (see further below).	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.3 and Table 9-13
	The following buffers from works are applied to habitat features, in order to avoid impacts on these, as set out within the **Framework CEMP [EN010142/APP/7.8(Rev03)]**: • All woodland – at least 15 m; • All trees within hedgerows and individual trees – protected by clearly defined root protection areas, concordant with the requirements for each individual tree as detailed in **Appendix 12-7: Arboricultural Impact Assessment [APP-107 to APP-109]**; • Watercourses (where practicable) – at least 10 m from the bank-top of the watercourse; • Standing water – at least 20m; • Hedgerows – where practicable, at least 5m.	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.4
	Vegetation clearance will be undertaken in advance of construction and at an appropriate time of year so as to avoid the nesting bird period and incidental injuring or killing of animals, such as Brown Hare or reptiles. These measures are set out in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**.	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.13
	As set out within the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, security perimeter fencing will be implemented early in the construction phase to secure the Order limits and prevent construction activity in proximity to peripheral habitats and retained habitats within the Order limits. The fence design will include gaps to allow mammals that may use woodland habitats to pass underneath strategic locations	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.1

Topic	Measure	ES Reference
	but equally, gaps will be avoided near areas targeted at providing habitat for ground-nesting birds, to act as an anti-predator fence.	
	During construction of the Cable Route Corridor, the River Trent and the majority of smaller watercourses will be crossed using trenchless (non-intrusive) methods (e.g. horizontal directional drilling (HDD) techniques or similar, that would not disturb the watercourse), with the depth of the cable below the bed to be greater than 3m. The minimum depth under the River Trent and River Till will be 5m, to a maximum depth of 25m. These measures are established through the **Framework CEMP [EN010142/APP/7.8(Rev03)]** and will avoid direct impacts on ecological receptors associated with the watercourses.	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.3
	As set out within the **Framework CEMP [EN010142/APP/7.8(Rev03)],** Reasonable Avoidance Measures (RAMs) will be adopted, including appropriate buffers (of up to 30m) around any identified badger setts, or trees with bat roost potential (a buffer of 15m) throughout the Scheme.	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.8
Chapter 10: Water Environment [REP3-012]	The trenchless crossings, with send and receive pit excavations located at least 10m from the watercourse, will avoid direct impacts on watercourses.	**Chapter 10: Water Environment [REP3-012]** – Paragraphs 10.7.15-10.7.22
	Implementation of a 10m buffer from watercourses, where possible, established through the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, will avoid direct impacts on watercourses.	**Chapter 10: Water Environment [REP3-012**] – Paragraphs 10.7.44, 10.7.51
	The majority of the Principal Site is located within Flood Zone 1, avoiding areas of higher flood risk. This is with the exception of small areas of Flood Zone 3 within the Principal Site, which are within the floodplain of the River Till, Fillingham Beck and the River Eau. Where PV panels are to be located within these areas (field numbers 51, 56 and 57), the base of the PV modules, when at their lowest height, will be no lower than 20.06m AOD (i.e. to provide sufficient freeboard at a credible maximum scenario flood level), as set out within the **Outline Design Principles**	**Chapter 10: Water Environment [REP3-012]** – Paragraph 10.7.50

Topic	Measure	ES Reference
	Statement [REP4-020]. There will be no BESS-Solar Station Compounds or on-site substations located within Flood Zone 3.	
Chapter 11: Human Health [APP-042]	Refer to measures specified to avoid impacts for Landscape and Visual Amenity, Noise and Vibration, Socio-economics and Land Use within this table.	N/A
Chapter 12: Landscape and Visual Amenity [REP4-013]	The following is a summary of design principles that have been incorporated within the Scheme to avoid impacts on landscape and visual receptors, as far as practicable, as set out within the **Framework Landscape and Ecological Management Plan** (LEMP) **[EN010142/APP/7.17(Rev05)]**: • Removal of any solar infrastructure from the Area of Great Landscape Value (AGLV) designation along the prominent scarp slope of Lincoln Cliff, with only ecological or landscape mitigation located within the boundary of this local designation. • Withdrawing the boundary to the Principal Site northwards (in combination with landowner negotiations), away from the areas around Ingham and Fillingham, which include sensitive features such as Public Rights of Way (PRoW), Fillingham Lake and potential views from Fillingham Castle. • Avoiding areas of open or slightly undulating topography along the base of Lincoln Cliff, including immediately west of Glentworth. • Withdrawing the Principal Site boundary eastwards, away from Springthorpe, following site surveys that identified more open views from certain properties and the presence of the temporary voluntary permissive bridleway. • Avoiding construction access through Glentworth and along Flaxby Lane (where practicable), where sharp bends may require vegetation removal (identified as being of value in the Neighbourhood Plan); or where residents have expressed concerns about loss of tranquillity along quiet rural lanes. The avoidance of such routes informed the location of infrastructure, e.g. the access route from Middle Street to the proposed on-site substation that avoids Glentworth.	**Chapter 12: Landscape and Visual Amenity [REP4-013]** Paragraphs 12.7.5-12.7.6

Topic	Measure	ES Reference
	• Avoidance of sensitive landscape features along the Cable Route Corridor such as hedgerows as far as possible.	
Chapter 13: Noise and Vibration [AS-006]	As set out within the **Framework CEMP [EN010142/APP/7.8(Rev03)],** where practicable, trenchless methods will be avoided within 200m of residential receptors. Where this is not practicable, mitigation measures are set out within the **Framework CEMP [EN010142/APP/7.8(Rev03)]**.	**Chapter 13: Noise and Vibration [AS-006]** – Paragraph 13.7.9
Chapter 14: Socioeconomics and Land Use [APP-045]	The Scheme has been designed to take into account sensitive receptors, including by positioning infrastructure to avoid receptors such as Best and Most Versatile (BMV) land and PRoWs, as far as possible, as set out in **Chapter 4: Alternatives and Design Evolution** of the ES **[APP-035]**. Design changes to avoid socio-economic and land use impacts resulting from the Scheme have included: • A 5m buffer was applied to avoid impacts on PRoWs. • Residential and commercial buildings were avoided with a 50m buffer from Solar PV panels and a 250m buffer from BESS-Solar Station Compounds and associated infrastructure. • No-development zones/buffers were implemented into the design of the Scheme to ensure the protection of existing utility assets within the Solar PV Site. • The Cable Route Corridor has been designed to avoid, where possible, residential and commercial properties.	**Chapter 14: Socio-economics and Land Use [APP-045]** Paragraph 14.7.2 **Chapter 4: Alternatives and Design Evolution [APP-035]** Table 4-4, Table 4-6 and Paragraph 4.6.8
	Also refer to measures included within the **Framework LEMP [EN010142/APP/7.17(Rev05)]** to avoid impacting on landscape and visual amenity receptors, as summarised in this table in rows above.	**Chapter 14: Socio-economics and Land Use [APP-045]** Paragraph 14.7.6 g)
Chapter 15: Soils and Agriculture [APP-045]	The Order limits have been modified to remove some BMV land from the Scheme, this was informed by the detailed Agricultural Land Classification (ALC) survey results. An area of Grade 3a and Grade 3b land which was located on the western extent of the Principal Site near Springthorpe was removed from the Order limits	**Chapter 15: Soils and Agriculture [APP-045]** Paragraph 15.7.1

Topic	Measure	ES Reference
	post EIA scoping; and Grade 3a land on the north eastern extent near Harpswell was removed from the Order limits post statutory consultation.	
	A **Framework Soil Management Plan (SMP) [REP1-051]** has been submitted detailing measures for the preservation of the soil resource within the Order limits, avoiding both the loss of soil material from the Order limits and the loss of soil functional capacity for soil retained within the Order limits.	**Chapter 15: Soils and Agriculture [APP-045]** Paragraphs 15.7.2-15.7.4
Chapter 17: Other Environmental Topics – Section 17.4 Glint and Glare **[APP-048]**	The possible impacts of Glint and Glare from Solar PV panels were considered throughout the design process, the following measures have been included in the Scheme as a result: • Careful siting of the Scheme in the landscape with offsets from existing residential areas, vegetation patterns and road network; • Conserving existing vegetation patterns	**Chapter 17: Other Environmental Topics [APP-048]** Paragraph 17.4.34
Chapter 17: Other Environmental Topics – Section 17.7 Telecommunications, Television Reception and Utilities **[APP-048]**	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to avoid impacts to telecommunications and utilities. These include: • Locating the Scheme infrastructure outside of utilities protected zones. • The use of ground penetrating radar before excavation to identify any unknown utilities. • Consultation and agreement with relevant utility operators regarding construction/demobilisation methods prior to works commencing. Furthermore, protective provisions have been provided for all relevant statutory undertakers in the **draft DCO [EN010142/APP/3.1(Rev06)]** whose undertaking relates to telecommunications or other utilities. These measures will avoid impacts on utilities.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraphs 17.7.13 and 17.7.18
Chapter 17: Other Environmental Topics – Section 17.8 Materials and Waste **[APP-048]**	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework OEMP [REP4-022]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to avoid impacts associated with materials and waste, including the implementation of waste hierarchy and prioritising waste prevention.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraphs 17.8.19-17.8.29

Topic	Measure	ES Reference
Chapter 17: Other Environmental Topics – Section 17.9 Electric and Electro-Magnetic Fields **[APP-048]**	In accordance with the **Outline Design Principles Statement [REP4-020]**, the Cable Route Corridor cables will be in a trenchless crossing under the River Trent and the River Till, a minimum depth of 5m from the bed of the watercourse will be maintained. This will avoid impact on fish as a result of electro-magnetic fields.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraph 17.9.4
	In accordance with the **Outline Design Principles Statement [REP4-020]**, no Cable Route Corridor cables will be installed within 10m of any residential building. This will avoid impacts associated with electro-magnetic fields on residential receptors.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraph 17.9.26

Table 3-2: Application of Mitigation Hierarchy – Measures to Reduce / Mitigate Impacts

Topic	Measure	ES Reference
Chapter 6: Air Quality [APP-037]	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to minimise impacts from dust.	**Chapter 6: Air Quality [APP-037]** – Tables 6.14 and 6.15
Chapter 7: Climate Change [APP-038]	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework CTMP [EN010142/APP/7.11(Rev05)]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to minimise greenhouse gas (GHG) emissions from the Scheme. Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework DEMP [EN010142/APP/7.10(Rev03)]** and **Framework LEMP [EN010142/APP/7.17(Rev05)]** to mitigate the impacts of climate on the Scheme and the in-combination impacts on nearby receptors. Also refer to measures set out under the 'Water Environment' row of this table with regards to measures to minimise impacts associated with flood risk.	**Chapter 6: Climate Change [APP-038]** – Paragraphs 7.7.1-7.7.6
Chapter 8: Cultural Heritage [APP-039]	Measures are set out in the **Framework CEMP [EN010142/APP/7.8(Rev03)]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to minimise impacts to heritage assets. These measures include, but are not limited to, siting haulage and access routes away from sensitive receptors, use of low noise generators, placement of security and work lights to minimise light spill, with sympathetic screening of works.	**Chapter 8: Cultural Heritage [APP-039] –** Paragraph 8.8.3
	As set out within the **Framework LEMP [EN010142/APP/7.17(Rev05)],** embedded mitigation planting takes into consideration the surrounding landscape character to screen views to or from some heritage assets, respecting historic field boundaries and patterns. Furthermore, reinstatement of hedgerows removed along the Cable Route Corridor is proposed.	**Chapter 8: Cultural Heritage [APP-039]** – Paragraphs 8.8.4 – 8.8.5
	As set out within the **Framework LEMP [EN010142/APP/7.17(Rev05)],** the following measures have been embedded within design to minimise impacts on key heritage assets nearest to the Scheme: • Removal of solar panels from two fields west of the scheduled monument at Harpswell Hall to mitigate impacts upon heritage and landscape, including	**Chapter 8: Cultural Heritage [APP-039] –** Paragraph 8.8.7

Topic	Measure	ES Reference
	designed views from the former 'prospect mound' and similar views from permissive paths along the historic moat. • Removal of solar infrastructure from field north of Kexby Road and west of Northlands Road to mitigate heritage impacts relating to the setting and views from Glentworth Hall and the non-designated historic farmstead Glentworth Grange.	
Chapter 9: Ecology and Nature Conservation [APP-040]	The **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework OEMP [REP4-022]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** detail measures required to mitigate effects on biodiversity, including standard practice measures associated with dust deposition, pollution incidents, water quality, light, noise and vibration, biosecurity, and any species-specific measures.	**Chapter 9: Ecology and Nature Conservation [APP-040]** – Paragraph 9.8.6 and Table 9-13
	An Outline Drainage Strategy (see **Appendix 10-4: Outline Drainage Strategy** of the ES **[APP-098]**) has been developed to manage surface water runoff and will reduce the likelihood and severity of potential pollution incidents and flooding affecting watercourses and the local ditch network to reduce or eliminate adverse effects for aquatic and riparian species and habitats.	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.6
	Pre-construction surveys will be undertaken to support the baseline survey findings. The purpose of these preconstruction surveys is to ensure mitigation during the construction phase is based on the latest protected species and invasive species information.	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.7
Chapter 10: Water Environment [REP3-012]	The **Framework CEMP [EN010142/APP/7.8(Rev03)]** details measures required to mitigate effects associated with the water environment, including for the management of construction runoff, spillage risk, watercourse crossings with trenchless and trenched techniques, flood risk during construction, risk to the morphology of watercourses, and effects associated with access track crossings.	**Chapter 10: Water Environment [REP3-012]** – Paragraphs 10.7.10 – 10.7.45
	Runoff from the Scheme will be attenuated to ensure no increase in surface water discharge rates and to provide water quality treatment, in accordance with **Appendix 10-4: Outline Drainage Strategy** of the ES **[APP-098]**.	**Chapter 10: Water Environment [REP3-012]** Paragraphs 10.7.54-10.7.61

Topic	Measure	ES Reference
	The **Framework OEMP [REP4-022]** includes measures to manage the risk of pollution from small leaks and spillage from the Scheme during its operation and maintenance, such as correct storage in appropriately bunded areas of any hazardous materials, and appropriate, regular inspection and maintenance of all equipment on site.	**Chapter 10: Water Environment [REP3-012]** Paragraphs 10.7.65-10.7.67
	Measures for the management of impacts from decommissioning phase are set out within the **Framework DEMP [EN010142/APP/7.10(Rev03)]**.	**Chapter 10: Water Environment [REP3-012]** Paragraphs 10.7.78
Chapter 11: Human Health [APP-042]	Refer to measures specified for Air Quality, Landscape and Visual Amenity, Noise and Vibration, Socio-economics and Land Use, and Transport and Access within this table.	N/A
Chapter 12: Landscape and Visual Amenity [REP4-013]	Measures to minimise impacts on landscape and visual amenity are established through the **Framework CEMP [EN010142/APP/7.8(Rev03)]** through minimising construction disturbance and **Framework LEMP [EN010142/APP/7.17(Rev05)]** in the form of mitigation planting. The following is a summary of design principles that have been incorporated within the Scheme to minimise impacts on landscape and visual receptors, as far as practicable, as set out within the **Framework LEMP [EN010142/APP/7.17(Rev05)]**: • Identifying relevant Neighbourhood Plan 'key views' to highlight potential areas for mitigation, such as west of Harpswell. • Providing buffers around residential properties, with woodland mitigation where appropriate, but also cognisant of residents' appreciation of open views. These buffers vary from around 30m (where existing dense screening is in place) or more generally a minimum of 50m, up to around 300m. • Creating a buffer between the Principal Site and the Cottam Solar Project to the south and using these fields for ecological and landscape mitigation only.	**Chapter 12: Landscape and Visual Amenity [REP4-013]** Paragraphs 12.7.5-12.7.6

Topic	Measure	ES Reference
	• Provision of woodland or shelter belt planting along the south side of Kexby Road within areas identified for ecological mitigation, whilst also reducing cumulative views of the Cottam Solar Project. • Using higher flood-risk areas for ecological mitigation, with scope for wetland habitats. • Reinstatement and/or improvement of field boundaries, particularly in the more open parts of the site such as west of Harpswell, to limit visibility of the Scheme and increase landscape condition and habitat connectivity. • Use of smaller and/or peripheral fields for mitigation, such as along the south side of the A631. • Identifying areas for woodland belts to the west of Harpswell, to mitigate impacts on views from the Scheduled Monument moated site and historic gardens that are accessible through permissive paths and open space. • Use of existing farm tracks and field openings as the preferred routes for construction access, minimising loss of hedgerows. • Siting of on-site substations and operational site office in locations where existing screening will limit visibility, or where sensitivity is lower such as near the existing slurry lagoon at Hemswell Grange (see also items below). • Removal of panels from three fields at the north-eastern corner of the Principal Site to mitigate heritage and landscape impacts relating to the Scheduled Monument at Harpswell Hall. These include designed views from the former 'prospect mound' and similar views from permissive paths along the historic moat. • Removal of solar infrastructure from the two fields immediately east of the Scheduled Monument (Biodiversity Zone 8), to mitigate impacts as described above; and also reduce the presence of solar infrastructure close to a permissive circular walking route around the two fields to the east. • Removal of solar infrastructure from the field north of Kexby Road and west of Northlands Road to mitigate heritage impacts and reduce visibility for users and	

Topic	Measure	ES Reference
	residents of Kexby Road and from viewpoints around Glentworth. This area is now proposed for biodiversity mitigation and enhancement, as the eastern part of BZ 13. • Provision of woodland screening and an area of biodiversity enhancement south of Springthorpe Grange, to reduce visual impacts on the open views from the south of the property. • Extension to the biodiversity enhancement area (BZ6) into the field south of Hemswell Grange and Grange Cottage on the A631, to create a wider buffer with tree planting to limit residential view of panels. • Provision of woodland or shelter belt planting along the south side of the Order limits and mitigation area south of Kexby Road (BZ 14); and the removal (of proposed trees and hedges along the southern boundary of Kexby Road following feedback received at statutory consultation stage. This amendment reflects concerns raised by residents within properties along Kexby Road about loss of open views to the south, while retaining screening to the Cottam Solar Project. • Provision of wider buffers to trees over 4m tall and 10m from the top of ditch banks, as opposed to from the centre of watercourses. • Relocation of the operational site office and stores to a location south of Hemswell Grange due to amenity concerns over the adjacent sludge lagoon but utilising existing vegetation screening from the A631 and the adjacent property at the new location.	
Chapter 13: Noise and Vibration [AS-006]	The Scheme has embedded measures that represent the Best Practicable Means (BPMs) to reduce impacts from noise and vibration during construction and decommissioning. These BPMs are set out within the **Framework CEMP [EN010142/APP/7.8(Rev03)]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]**. The management plans also set out requirements with regards to a monitoring scheme and a communication strategy and complaints system. Where necessary, the Applicant will submit an application for prior consent	**Chapter 13: Noise and Vibration [AS-006]** Paragraphs 13.7.1-13.7.17

Topic	Measure	ES Reference
	under Section 61 of the Control of Pollution Act 1974 to demonstrate that noise and vibration has been minimised as far as reasonably practicable.	
	A method of scheduling construction traffic from different work teams so they do not overlap is committed to in the **Framework CEMP [EN010142/APP/7.8(Rev03)]** and the **Framework DEMP [EN010142/APP/7.10(Rev03)].** The secured avoidance of the overlap of this construction traffic is considered sufficient mitigation to address any potential for significant effects.	**Chapter 13: Noise and Vibration [AS-006]** Paragraphs 13.9.2-13.9.3
	Measures included in the **Framework CTMP [EN010142/APP/7.11(Rev05)]** to minimise traffic related noise impacts for existing receptors.	**Chapter 13: Noise and Vibration [AS-006]** Paragraphs 13.7.11-13.7.12
	Several measures have been embedded within the design principles of the Scheme to minimise noise and vibration related impacts, as set out within the **Framework OEMP [REP4-023]** and the **Outline Design Principles Statement [REP4-020]**: • Plant selection (noise emissions will be one of the criteria evaluated when procuring equipment for use on the site). • Design layout of elements within the Order limits to minimise noise at receptors, including: – Locating the Solar Stations in areas away from large concentrations of receptors such that noise emissions from electrical equipment are less impactful; – Location and orientation of inverters and transformers; and – Location of BESS-Solar Station Compounds at least 250m from residential properties. Transformers may be standalone units or pre-assembled with inverters and switchgear to form a single contained unit (i.e. enclosed). The issue of low frequency noise will be considered throughout the detailed design for the on-site substations and eliminated through design, or appropriately mitigated (isolation and attenuation measures) where appropriate.	**Chapter 13: Noise and Vibration [AS-006]** Paragraphs 13.7.13 – 13.7.17

Topic	Measure	ES Reference
	Requirement 17 of the **draft DCO [EN010142/APP/3.1(Rev06)]** sets out that noise at sensitive receptors will be no higher than the levels predicted within the ES chapter.	**Chapter 13: Noise and Vibration [AS-006]** Paragraph 13.7.16
Chapter 14: Socioeconomics and Land Use [APP-045]	Measures have been included within the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework OEMP [REP4-022]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to reduce amenity impacts on sensitive receptors during the construction, operation and decommissioning of the Scheme, including noise, air quality, transport and landscape and visual impacts that can affect local communities. Further specific measures to manage transport and landscape impacts are included within the **Framework CTMP [EN010142/APP/7.11(Rev05)]**, **Framework PRoW Management Plan [REP3-041]** and **Framework LEMP [EN010142/APP/7.17(Rev05)]**.	**Chapter 14: Socioeconomics and Land Use [APP-045]** Paragraphs 14.7.1-14.7.8
Chapter 15: Soils and Agriculture [APP-045]	Measures have been included within the **Framework SMP [REP1-051]** to reduce impacts on soils and agricultural land during construction, operation and decommissioning.	**Chapter 15: Soils and Agriculture [APP-045]** Paragraphs 15.7.1-15.7.4
Chapter 16: Transport and Access [APP-047]	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework CTMP [EN010142/APP/7.11(Rev05)]**, **Framework OEMP [REP4-022]**, **Framework DEMP [EN010142/APP/7.10(Rev03)]** and **Framework PROW Management Plan [REP3-041]** to reduce impacts with regards to transport and access.	**Chapter 16: Transport and Access [APP-047]** Paragraphs 16.7.1-16.7.6
Chapter 17: Other Environmental Topics – Section 17.4 Glint and Glare **[APP-048]**	Creating new Green Infrastructure (i.e. vegetation planting) within the Principal Site and specifying Anti-Reflective Coating (ARC), an industry standard for solar PV panels, to reduce the reflective properties of the panels.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraph 17.4.34

Topic	Measure	ES Reference
Chapter 17: Other Environmental Topics – Section 17.5 Ground Conditions **[APP-048]**	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework OEMP [REP4-022]**, **Framework DEMP [EN010142/APP/7.10(Rev03)]** and **Outline Drainage Strategy [APP-098]** to minimise the risks associated with ground contamination.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraphs 17.5.21-17.5.25
Chapter 17: Other Environmental Topics – Section 17.6 Major accidents and Disasters **[APP-048]**	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework OEMP [REP4-022]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to reduce risks of major accidents and disasters during construction, operation and decommissioning. Measures included in the **Framework Battery Safety Management Plan (BSMP) [REP4-026]** and **Work Plans [REP2-004]** to reduce risks associated with BESS.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraph 17.6.31
Chapter 17: Other Environmental Topics – Section 17.8 Materials and Waste **[APP-048]**	Measures included in the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, **Framework OEMP [REP4-022]** and **Framework DEMP [EN010142/APP/7.10(Rev03)]** to minimise impacts associated with materials and waste, including the implementation of waste hierarchy and prioritising preparing for reuse, recycling, and other recovery ahead of disposal.	**Chapter 17: Other Environmental Topics [APP-048]** Paragraphs 17.8.19-17.8.29

Table 3-3: Application of Mitigation Hierarchy – Measures to Compensate / Offset

Topic	Measure	ES Reference
Chapter 8: Cultural Heritage [APP-039]	Measures to offset the effects arising from the disturbance or loss of buried archaeological remains by the Scheme would comprise archaeological excavation and recording (strip, map and sample excavation) of the archaeological remains prior to construction. Details of these measures are set out in the **Archaeological Mitigation Strategy [REP1-025]**.	**Chapter 8: Cultural Heritage [APP-039]** – Paragraphs 8.10.3 – 8.10.8
Chapter 9: Ecology and Nature Conservation [APP-040]	As set out within the **Framework LEMP [EN010142/APP/7.17(Rev05)]**, areas of habitat creation, alongside extensive habitat enhancements, have been incorporated to offset the impact of loss of arable farmland for breeding Skylark and other ground nesting birds, as well as provide extensive benefits for other important ecological features and wider biodiversity. The locations of proposed measures (Biodiversity Zones) are illustrated on the Framework Landscape Masterplan in Appendix A of the **Framework LEMP [EN010142/APP/7.17(Rev05)]**. The Biodiversity Zones include: • Woodland planting and native tree belts; • Planting of new species rich hedgerows; • Shrub planting; • Natural regeneration areas; • Species rich grassland; • Pond restoration and aquatic planting; • Habitat boxes for birds and bats; • Habitat piles.	**Chapter 9: Ecology and Nature Conservation [APP-040]** – Paragraphs 9.8.7-9.8.12; Paragraphs 9.10.4-9.10.17
	In accordance with the **Framework CEMP [EN010142/APP/7.8(Rev03)]**, where open cut watercourse crossings are required, reinstatement following the works will aim to provide an improved channel form, with reinstatement works to be carried out (where relevant and appropriate to do so) between 5 and 10m upstream and downstream of the open trench to ensure the reinstated improved channel form merges into the existing channel form. It is anticipated that enhancements will	**Chapter 9: Ecology and Nature Conservation [APP-040]** - Paragraph 9.8.5

Topic	Measure	ES Reference
	consist of soft engineering techniques and improvements to the riparian corridor to improve channel diversity and biodiversity.	
Chapter 10: Water Environment [REP3-012]	The reinstatement of watercourses 5 and 10m upstream and downstream of open trench crossings referenced above is also relevant to the water environment assessment.	**Chapter 10: Water Environment [REP3-012]** Paragraph 10.7.24
Chapter 11: Human Health [APP-042]	Refer to measures specified for Landscape and Visual Amenity, Noise and Vibration, Socio-economics and Land Use, and Transport and Access within this table.	N/A
Chapter 12: Landscape and Visual Amenity [REP4-013]	The following is a summary of design principles that have been incorporated within the Scheme to offset impacts on landscape and visual receptors, as far as practicable, as set out within the **Framework LEMP [EN010142/APP/7.17(Rev05)]**: • Wider use of new green infrastructure elements and corridors throughout the Scheme, to increase habitat connectivity; enhance landscape condition; and improve visual amenity within sometimes degraded agricultural landscapes. This includes provision of semi-improved grassland beneath the solar panel areas and within the wider Principal Site to increase biodiversity relative the current arable monocultures, including biomass crops. • Amendments to the proposed woodland and biodiversity enhancement around the former orchard area north of Grange Cottages on School Lane, mainly to reflect great crested newts within the pond, but also allowing a wider buffer to the relic vegetation whilst maintaining screening of the proposed on-site substation for the Cottages. • Enhancements to existing hedgerows running east-west through the site, to create more robust and continuous green infrastructure corridors, e.g. BZ 10 east of Harpswell Wood. • Provision of two permissive paths connecting Common Lane and Kexby Road, offering recreational access in an area where PRoW are limited and also improving north-south off-road links. The paths will be located within 25m wide	**Chapter 12: Landscape and Visual Amenity [REP4-013]** Paragraphs 12.7.5-12.7.6

Topic	Measure	ES Reference
	corridors that will allow sufficient space for planting such as hedgerows to screen solar infrastructure and offer biodiversity and visual interest to users.	
Chapter 14: Socioeconomics and Land Use [APP-045]	Two new permissive paths have been included within the design of the Scheme to enhance recreational routes within the area for local communities.	**Chapter 14: Socioeconomics and Land Use [APP-045]** Paragraph 14.7.7
	A **Framework Skills, Supply Chain and Employment Plan** (SSCEP) **[APP-232]** has been prepared to maximise and proactively expand the economic benefits of the Scheme for the local community.	**Chapter 14: Socioeconomics and Land Use [APP-045]** Paragraph 14.9.2
Chapter 16: Transport and Access [APP-047]	Two new permissive paths, which will benefit all vulnerable road users, are to be provided within the Principal Site during the operational phase of the Scheme.	**Chapter 16: Transport and Access [APP-047]** Paragraph 16.9.2

References

Ref 1-1 Department for Energy Security and Net Zero (2024). Overarching National Policy Statement for Energy EN-1. Accessed on 12/02/2025 at https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1

Tillbridge Solar

Tillbridge Solar Project
EN010142

Appendix C – Applicants Response to ExQ2.1.10

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Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010

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Appendix C – Applicant's Response to ExA's Second Written Questions – ExQ2.1.10

Document Reference - Tillbridge Solar Project Examination Library	Organisation	Issues raised regarding common elements (Shared Cable Route Corridor (CRC) and Cottam Substation)	Approach proposed by the Tillbridge Solar Project	Gate Burton Energy Park - ExA Recommendation Report	Gate Burton Energy Park – Secretary of State Decision	Cottam Solar Project - ExA Recommendation Report	Cottam Solar Project - Secretary of State Decision	West Burton Solar Project – ExA Recommendation Report	West Burton Solar Project – Secretary of State Decision	Consideration of concern/effect already considered by the Secretary of State or previous ExAs in relation to the other schemes
INTERESTED PARTIES										
RR-208 **RR-165** **REP1A-001** **REP1A-003-007**	Natural England (NE)/ Lincolnshire County Council (LCC)/ West Lindsey District Council (WLDC)	Seeking ALC survey within the shared cable route.	Framework Soil Management Plan **[REP1-051]** proposes that a soil survey of the cable route will be undertaken prior to construction to ensure the management of soils during construction to minimise degradation.	Gate Burton Energy Park undertook a desk-based assessment to locally 'predict' ALC grades using climate, flood risk, topography and geological information. This was then presented on figures to estimate areas of best and most versatile land. An intrusive ALC survey was not undertaken. The ExA concluded that appropriate mechanisms will be put in place to manage soil and restore it (paragraphs, 3.11.100, 3.11.109 and 3.11.110).	The Secretary of State agreed with the ExA that the Applicant's assessment of ALC land was reasonable (paragraph 4.1.174).	No ALC survey was completed of the cable route prior to development consent being granted. The ExA agreed with the approach to surveying the cable route prior to the commencement of the development and that this was secured in the Outline Soil Management Plan (paragraphs 3.8.33 and 3.8.57).	The Secretary of State agreed with the ExA on this matter (paragraph 4.72).	An ALC assessment was not undertaken for the Cable Route Corridor due to the proposals to bury the cable. The ExA concluded that although the CRC has not yet been surveyed, the oSMP would ensure the management of soil resource in the area (paragraphs 3.7.42, 3.7.44, 3.7.58 and 3.7.59). NE confirmed that it was content with the revised oSMP. The ExA further stated at paragraph 3.7.70 that whilst the ALC survey did not cover the CRC, that any loss of agricultural land here would be modest and for a short duration.	The Secretary of State agreed with the ExA on this matter (paragraph 4.270).	**The approach proposed by the Tillbridge Solar Project aligns with the Cottam Solar Project and the West Burton Solar Project, these being the most recently granted development consent applications (September 2024 and January 2025).**
REP1A-002	Nottinghamshire County Council (NCC)	The Local Highway Authority requested a revision to the routing of HGVs through Laneham Road through Stokeham.	The **Framework Construction Traffic Management Plan** (CTMP) **[EN010142/APP/7.11 (Rev03)]** has been amended and submitted at Deadline 3 to amend the construction route for the CRC such that Laneham Road is used, which passed through Stokeham rather than the village of Laneham.	The ExA in his report raised no concerns with transport and access impacts with no specific reference to Laneham Road as a construction route other than confirming that this was the HGV route proposed by the Applicant (paragraphs 3.12.27, 3.12.69 and 3.12.70). The FCTMP for Gate Burton identifies key routes that will be used by	The SoS agreed with the ExA's conclusions and weight ascribed to traffic and transport issues (neutral) (paragraph 4.13).	The ExA concluded that the Scheme would not result unacceptable impacts to highway safety and that residual cumulative impacts would not be severe (paragraph 3.10.39).	The SoS agreed with the ExA's conclusions and weight with respect to transport and access (neutral) (paragraph 4.6).	Paragraphs 3.6.29 and 3.6.30 of the ExA Recommendation Report confirms that the measures set out in the oCMTP are appropriate to manage the effects of construction traffic on the SRN. The ExA noted that all transport and access matters were agreed with the local highway authorities, including those relating to construction traffic access. The ExA also concluded that	The Secretary of Stated confirmed agreement at paragraph 4.17 of the decision letter with the ExA's conclusions on transport and access matters.	The **Framework CTMP [EN010142/APP/7.11(Rev03)]** was amended and submitted at Deadline 3 to address the query raised by NCC as Local Highway Authority regarding the preferred routing of construction vehicles via Laneham Road as set out in paragraph 5.41 of its LIR. The potential impact of this change in terms of the assessment in the ES has been

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				HGVs. This shows HGVs travelling via the A57, Laneham Road and Rampton Road to access Cottam Road and Headstead Bank.				that the evidence set out in the ES and supporting information on traffic and transport matters confirmed that the surrounding road network would not be adversely effected by construction traffic access. The construction vehicle routing for the Cable Route Corridor included the use of Laneham Road as shown in Figure 5.4 of the oCTMP. This being consistent with Gate Burton and Cottam.		considered to ensure that no new significant adverse effects would arise. **This amendment confirms that the FCTMP [EN010142/APP/7.11 (Rev05)] aligns with all three consented schemes (Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project).**
REP1A-003-007	WLDC	Impact of construction on farming businesses -additional farm businesses will also occupy land crossed by the shared cable route which have not been assessed.	There is minimal potential for significant effects as a result of the shared cable route on farming businesses, as following the brief construction work for each section of the cable route, the land can resume its current agricultural use.	The ExA referred to the impact of the project upon farm holdings. This focused on consideration of the solar site. No specific mention was made of farm holdings with the cable route (paragraph 3.11.115).	The SoS does not make specific reference to farming businesses.	The ExA at paragraph 3.8.27 considered cumulative effects, including the Tillbridge Solar Project, states that there is no meaningful data available concerning farming circumstances. It was concluded that farming businesses would be unlikely to be unacceptably impacted by the proposed development.	The SoS agreed with the ExA's conclusions in relation to cumulatives, which included consideration of impacts upon agriculture (paragraph 4.90).	The ExA recommendation report at paragraph 3.7.72 states that *"on the basis of the direct and cumulative agricultural job losses, and the identified benefits, the ExA considers that farming businesses would unlikely to be unacceptably impacted by the Proposed Development."*	The Secretary of State agreed with the ExA that although the proposed development would result in some direct agricultural job losses farming businesses would be unlikely to be unacceptably impacted by the Proposed Development (paragraph 4.271)	**The decisions on Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project confirmed that impacts on farming businesses would unlikely be unacceptable. The Tillbridge Solar Project retains this position. This is consistent with the consented schemes.** The short duration and small land take associated with works to construct the cable route corridor will ensure that land is only temporarily impacted before the land is reinstated and returned to its continued agricultural use.
REP1A-003-007	WLDC	WLDC maintains concerns around	The **Framework LEMP**	The ExA agreed with the applicant's	The SoS agreed with the ExA's	The ExA confirmed	The SoS agreed with the ExA and	The ExA confirmed that the applicant's	The Secretary of State agreed with	The Tillbridge Solar Project includes

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		the cumulative approach and impacts upon the successful implementation of the **Framework Landscape and Ecological Management Plan** (LEMP) **[EN010142/APP/7.17(Rev03)]** (e.g. within the cable corridor). More detail around how projects will be phased and mitigation delivered is required to avoid abortive implementation of measures, which could elongate the time period for when mitigation is delivered.	**[EN010142/APP/7.17 (Rev03)]** includes the timing of the delivery of mitigation measures in line with the progression of relevant cumulative schemes. A final (detailed) LEMP will be prepared prior to the commencement of works, which must substantially accord with the Framework LEMP, in accordance with the Requirement 7 in Schedule 2 of the **draft DCO [EN010142/APP/3.1 (Rev04)]**. The final LEMP will be updated at 5-year intervals throughout the operational life of the Scheme.	assessment that in either a scenario where all projects are built together or sequentially that they will not result in significant cumulative effects (paragraph 3.4.24) Reference is made to the potential for joint mitigation within the shared cable route to manage environmental effects. The detailed CEMP(s) would outline all ecological mitigation. The CEMP is secured through Requirement 12 of the Gate Burton Energy Park DCO. The ExA concluded that this would provide reasonable safeguards with the applicant demonstrating joint working (paragraph 3.4.59).	conclusions and neutral weight ascribed to the planning balance with respect to ecology (paragraph 4.13).	that the level of the information submitted is sufficient to reach conclusions on effect (paragraph 3.4.37).	was satisfied with the management of landscape and ecology and the manner in which it was secured through the Cottam Solar Project DCO and that the applicant had adequately assessed the likely significant effects of the proposed development cumulatively with other planned developments (paragraphs 4.6 and 4.90).	approach to minimising and mitigating the landscape and visual effects was reasonable (paragraph 3.3.103), and the extent of hedgerow removal would be modest and that this would be managed through the implementation of the LEMP (paragraph 3.3.105). Further, paragraph 3.5.67 confirms that the ExA concluded the effects on trees and hedgerows would be largely temporary and would be followed by an increase in hedgerow provision. The ExA also stated at paragraph 3.5.67 that measures provided in the relevant outline management plans would be secured by requirements in the DCO and would provide assurance that the impact of activities would not adversely effect habitats.	the ExA that the applicant had undertaken an assessment of cumulative effects in accordance with NPS EN-1 (paragraph 4.296) and that the Scheme biodiversity and ecology matters and impacts have been appropriately assessed and adequate mitigation secured through requirements (paragraph 4.213). The Secretary of State agreed with the ExA at paragraph 4.219 that there would be a significant adverse effect on trees and hedgerows which would be largely temporary and followed by an increase in hedgerow provision and with suitable mitigation provided.	sufficient control mechanisms secured through requirements to ensure the successful implementation of landscape and ecological mitigation measures in conjunction with the other Schemes if these are implemented. **The approach is in accordance with the consented Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project.**
RR-093	Environment Agency (EA)	Potential effects of (electromagnetic fields) EMF in relation to fish within the River Trent.	The Tillbridge Solar Project seeks to secure a 5m minimum depth of the cable under the River Trent through the Outline Design Principal Statement (ODPS) **[EN010142/7.4 (Rev02)].** Requirement 5 in Schedule 2 of the draft DCO	The applicant undertook a risk assessment of impacts from EMF from the cable crossing to ecological receptors. This concluded that as the cable would be buried at a minimum depth of 5m below the	The Secretary of Statement's Decision letter accepted the conclusions of the applicant's Risk Assessment, and considered a significant impact on the qualifying features of the Humber Estuary SAC to be unlikely. However, NE	Paragraph 5.28 of the ExA Recommendation Report stated that the Risk Assessment of EMF Impacts on Fish document considered that potential effects of electric fields on these fish would not be likely due to the buried depth of the	The SoS agreed with the applicant's Risk Assessment and considered it sufficiently precautionary in terms of the 5m minimum depth at which the cable would be buried beneath the riverbed of the River Trent. The SoS welcomed the	Paragraph 4.2.14 of the ExA stated that whilst it is satisfied that the risks to migratory fish would be low, the creation of a programme of monitoring equivalent to that provided in respect of Gate Burton Energy Park was strongly encouraged and noted the	Following further information from the EA and consultation with NE, the Secretary of State requested that the Applicant revise the oOEMP to ensure a programme of EMF monitoring is included, to be approved by the EA in consultation with NE (paragraphs	**The Outline Design Principles Statement [EN010142/APP/7.4 (Rev04)]** at page 9 secures a minimum depth of 5m for the cable below the lowest surveyed point of the riverbed to prevent disturbance to fish species.

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			[EN010142/APP/3.1 (Rev04)] requires that the detailed design will need to be in accordance with the ODPS.	riverbed (as secured in the outline design principles that the likelihood of a significant effect was low and not significant. This was agreed in the applicant's SoCGs with the EA and Natural England (NE) (paragraph 3.4.58).	requested a need for a programme of monitoring to collect further data in the interests of informing best practice, as well as the design and assessment of future developments. The Secretary of State agreed with this (paragraphs 5.16 and 5.17).	cable. The same conclusion is reached with regard to cumulative effects**.** The final SoCG between the applicant and the EA agreed that monitoring would be secured by the final Operational Environmental Management Plan (OEMP).	scheme of EMF monitoring, as detailed in the outline OEMP and secured in Requirement 14 of the Cottam Solar Project DCO(paragraph 5.24).	Secretary of State may wish to reiterate the position reached on Gate Burton.	5.20 to 5.27), concluding that the Applicant's EMF Risk Assessment is appropriate and welcomes the scheme of EMF monitoring. The SoS at paragraph 5.27 also confirmed that the minimum 5m burial depth of the cable under the Trent is sufficiently secured through Requirement 5 of the Order.	The **Framework Operation Environmental Management Plan [REP4-022]** secures on page 15 a programme of monitoring impacts from EMF on fish species in the vicinity of the operational cable crossing beneath the River Trent. Requirement 13 in Schedule 2 of the **draft DCO [EN010142/APP/3.1(Rev06)]** secures the submission of a OEMP to be substantially in accordance with the Framework OEMP and for construction works associated with the authorised development to be carried out in accordance with the approved OEMP. **These mechanisms and control measures associated with detailed design and operation fully align with the approach taken for consented Gate Burton Energy Park, the Cottam Solar Project and the West Burton Solar Project.**
RR-292	Stow Parish Council	Construction traffic impacts through the village. Vehicles close to SM of St Mary's Church with effect of heavy vehicles on	Figures 1 and 2 of the **Framework CTMP [EN010142/APP/7.11 (Rev03)]** set out the proposed HGV and AIL routes for the	No specific reference to SM of St Mary's church in relation to structural integrity.	No specific reference to SM of St Mary's church in relation to structural integrity.	The ExA at paragraph 3.7.3 stated that in light of the potential for a direct effect on the Site of a college and Benedictine Abbey, St Mary's Church	The SoS in his decision also confirmed at paragraph 4.6 that he agreed with the ExA's conclusions in relation to transport and access matters	Construction traffic through Stow is not applicable to the West Burton Solar Project.	Construction traffic through Stow is not applicable to the West Burton Solar Project.	The **Framework CTMP [EN010142/APP/7.11(Rev03)]** includes the same provisions for the protection of this asset as were agreed by the ExA

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		foundations of the SM. Impacts on the B1241 – primary school.	Principal Site and Cable Route Corridor. HGVs and AILs will travel along Sturton Road (B1241) and Stow Park Road/Marton Road/Tillbridge Lane (A1500) to access and construct the cable route. Section 7 of the **Framework CTMP [EN010142/APP/7.11 (Rev03)]** provides full details of embedded mitigation measures that are proposed to prevent or reduce potential adverse effects associated with construction traffic on local roads. A detailed CTMP (which must substantially accord with the Framework CTMP) will need to be approved prior to construction by the relevant local authorities and this is secured by requirement 14 in Schedule 2 to the **draft DCO [EN010142/APP/3.1 (Rev04)]** Severance, pedestrian delay (incorporating delay to all non-motorised users) on the B1241 (ATC 23) which passes Sturton-by-Stow Primary School (Table 16-20 of **Chapter 16: Transport and Access** of the ES **[APP-047]**). The			SM, that it raised concerns over the potential for effects on its structural integrity, including the boundary retaining wall abutting the road. The ExA confirmed that it was also raised by Interested Parties, including Stow Parish Council. The Applicant subsequently updated the outline CTMP to include provisions for such a plan. HE confirmed that the measures set out appeared appropriate to provide adequate protection against damage to this asset. Therefore, the ExA concluded that there were no unresolved matters that related to this asset (paragraph 3.7.36) The use of the B1241 as a construction route was examined by the ExA in relation to the Cottam Solar Project. In his report, the ExA at paragraph 3.10.28 confirmed that: *"Accordingly, we are satisfied that the effects arising from construction traffic access, routing and generation would be ably accommodated on the local highway network*."	attributing neutral weight in the planning balance.			and SoS in relation to the Cottam Solar Project (refer to paragraphs 5.6.4 and 5.6.5 of the Framework CTMP). **The approach taken in this regard by the Tillbridge Solar Project is consistent with the consented Gate Burton Energy Park and Cottam Solar Project.**

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			significant adverse effect on the B1241 will only occur in the worst-case scenario for a short period of time (in the order of a couple of weeks) if activity on the construction of the cable route is concentrated on the B1241 north of Fleets Road.							
RR-214 and RR-091	Nicholas Hill and Emma Ruth Hill	Nicholas Hill owner of Hill agriculture. Hill agriculture purchased land at Marton and gained planning permission for a new farm yard and buildings for our first generation agricultural business. We totally object. Tillbridge, Gate Burton, [Cottam] and west Burton proposed cable routes go directly Straight through our new farm yard this will have a devastating impact on our first generation farming business and may put us out of business as we will simply not be able to develop our farm	Whilst all solar NSIP schemes have sought to deliver a shared cable route as far as practicable to minimise environmental impacts, there is a need to retain some flexibility to ensure that one project does not prevent another project coming forward should all DCOs be made and to have regard to the extant planning permission for the agricultural barns in this location (LPA Ref no. 145882). In the case of land owned by Nicholas Hill, the Scheme includes an area of optionality within the cable route that provides two alternative routes, one to the north of the approved barns and one to the south. During the coordination discussions with the other developers, the Applicant has sought to ensure that each of their	The ExA confirmed that they were satisfied that the rights to be acquired and/or created are necessary to permit the realisation of the proposed development and that the proposed development would result in significant public benefits and that these outweigh any private interests such that the compelling case in the public interest is made (paragraph 6.6.10).	SoS agreed with ExA that the rights to be acquired and/or created were necessary to permit the realisation of the proposed development and that the proposed development would result in significant public benefits that outweigh any private interests, such that the compelling case in the public interest is made (paragraph 6.4).	The ExA concluded that the land is required for the grid connection, an essential element of the proposed development confirming that it satisfies the first limb of s122 of the Planning Act 2008 (PA2008). The ExA confirmed that overall, it accepted that whilst the compulsory acquisition and temporary possession powers sought might result in some adverse impacts to Mr and Mrs Hill's private interests, in view of the established need for energy generation and the need to provide certainty in terms of project delivery, that there is a compelling case in the public interest for that the land to be acquired compulsorily. The ExA were therefore satisfied that it met the tests in s122(3) the PA2008	The Secretary of State agreed with the ExA's conclusions and considered that there is a compelling case in the public interest for the compulsory acquisition and temporary possession powers sought (paragraphs 6.5 and 6.6).	The ExA concluded at paragraph 6.6.24 that the applicant had sought to minimise effects on this land interest set out in the Options Report. The ExA confirmed that it was satisfied that the land is required for a legitimate purpose, that the powers sought are necessary and proportionate and that there is a compelling case in the public interest for the proposed acquisition of new rights affecting the Hills' land. The ExA noted the consideration of alternative cable routes by the applicant, and did not recommend that a changed route be adopted. The ExA concluded that "*Matters relating to the consented barns should therefore be addressed through compensation provisions."*	The Secretary of State agreed with the ExA's conclusions (paragraph 6.12)	In common with the other projects, the Applicant has identified that the land is required for the cable route. The Applicant has sought to reach a voluntary agreement with Nicholas Hill and Emma Ruth Hill as outlined in the **Schedule of Negotiations and Powers Sought [EN010142/APP/4.4(Rev04)]**. The Applicant has included optionality in this location in the event that at detailed design there is not sufficient land for all four projects to have their cables running to the north of the proposed barns (should all be consented). **The approach taken in this regard by the Tillbridge Solar Project is consistent with the consented Gate Burton Energy Park, Cottam Solar**

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			respective Order limits would not prejudice the implementation of the approved planning permission for the agricultural barns and to also allow sufficient space for the cables associated with the four NSIP schemes to be located either north or south of the proposed barns.			(paragraphs 6.7.26 to 6.7.28).				**Project and West Burton Solar Project in that the land is required for the cable route, however the Tillbridge Solar Project differs as it includes optionality.**
PROTECTIVE PROVISIONS										
RR-316	Trent Valley IDB	Seeking protection of watercourses – will only accept an increase in flow if no harm or mitigation in place. Byelaw Number 10 prevents planting within 9 metres of watercourse. Byelaw Number 17 – all watercourses to be crossed by HDD at a depth of no less than 2m plus the cable safety distance below the hard bed level of all watercourse.	Any temporary Sustainable Drainage Systems with discharges to Trent Valley Internal Drainage Board managed watercourses during construction would be managed by the Contractor, as set out within the **Framework CEMP [EN010142/APP/7.8 (Rev02)],** which in turn is secured by requirement 12 of the **draft DCO [EN010142/APP/3.1 (Rev04)].** Article 6(1)(c) of the **draft DCO [EN010142/APP/3.1 (Rev04)]** seeks to disapply Byelaw 17 (as a byelaw made under section 66 of the Land Drainage Act 1991. Instead, the dDCO would manage drainage matters via the protective provisions to be agreed between Trent Valley IDB and the Applicant.	SoCG unsigned at close of Examination. ExA concluded that although TVIDB did not conclude a SoCG with the applicant that the ExA had no substantive objections from them in respect of flooding or water quality issues (paragraph 3.13.70).	SoS agreed with the ExA, assigning neutral weight to flood risk in the planning balance (paragraph 7.4).	Protective provisions included for Trent Valley IDB within the Cottam Solar Project DCO. No specific reference was made to this matter within the ExA recommendation report.	SoS agreed with the ExA in terms of water and flood risk comprising neutral weight in the planning balance (paragraph 7.2).	The ExA concluded that the effect in terms of water environment and flooding is weighted as neutral in the planning balance (paragraph 5.2.67). Protective provisions are included within the West Burton DCO for the protection of internal drainage boards, including TVIDB.	The SoS agreed with the ExA that matters relating to water and flooding are neutral in the planning balance (paragraph 7.8).	The Applicant has provided TVIDB with a copy of the standard drainage board provisions included in the **draft DCO EN010142/APP/3.1 (Rev04)]** for review and comment. The Applicant is awaiting a response but discussions around protective provisions to date have generally been positive, including at a technical meeting between the Applicant and the Drainage Board held in August 2024 and ongoing discussions regarding an SoCG between the parties. While the Applicant cannot provide exact timescales for resolution at this stage, the Applicant is confident that agreement can be reached within the timescales of the examination. The Applicant will track agreement of protective

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			The Applicant awaits the Trent Valley IDB's comments on the protective provisions included within the draft DCO. The Applicant is looking to agree the protective provisions with TVIDB through a Statement of Common Ground (SoCG). No planting proposed within any part of CRC within IDB area. Preliminary designs show a minimum depth of 3m below the watercourse bed level. Except Till and Trent where will be a minimum of 5m below the lowest survey point of the riverbed. Minimum depth secured within the **ODPS [EN010142/7.4 (Rev02)]**.							provisions through its SoCG with TVIDB, and will submit an updated SoCG once comments on protective provisions have been received. **At this stage of the examination, therefore, the approach taken by the Tillbridge Solar Project is entirely consistent with that taken for the Gate Burton Energy Park and Cottam Solar Project.**
RR-080	EDF Energy	Proposed cable route must not sterilise the safeguarded land for future development at Cottam. EDF will require protective provisions within the draft DCO to protects its interests. Detailed design of cable route corridor – EDF request to be a consultee a part of the discharge of the requirement.	The Order limits do not prejudice the future development of the redevelopment of Cottam through the cable extending south out of the Cottam Substation, turning west before extending northwards towards Cottam Lane. The Applicant is progressing protective provisions with EDF.	The ExA confirmed that EDF retained its view that the compulsory acquisition of its land would cause serious detriment to its undertaking (paragraph 6.7.16). Given the required use of this land, there is no alternative land that can be used. The land is required for the safe decommissioning	The Secretary of State confirmed that negotiations on the protective provisions progressed such that the Secretary of State deleted subparagraph 190(1) of Part 15 of Schedule 14 to the draft Order requiring EDF's agreement to any compulsory acquisition (paragraph 9.17). The Secretary of State considers this should be dealt with	The ExA confirmed that EDF raised a number of matters during the Examination over the effect of the proposed development on its operations at the Cottam Power Station site and the Priority Regeneration Area (paragraph 3.9.42) . The ExA concluded that as part of the proposed development	The SoS in his decision letter confirmed that EDF continued to negotiate with the Applicant on the protective provisions however no Voluntary Land Agreement had been reached, and the Applicant had not yet been able to provide the reassurance that EDF requires to ensure there will be no serious detriment to its undertaking in	The ExA concluded that, in the absence of a voluntary property agreement, EDF's preferred wording on the protective provisions should be adopted in order to avoid serious detriment to EDF's undertaking and amended the DCO accordingly.	The SoS agreed with the ExA's conclusion, including the recommendation that the Applicant and EDF continue to work together to secure a voluntary property agreement,	The Applicant has reviewed and provided comments to EDF on EDF's standard protective provisions and is awaiting EDF's response. The bulk of the provisions are considered to be agreed, with only a handful of provisions needing further discussion and resolution (from the Applicant's perspective). While the Applicant cannot provide exact

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				and demolition of the former coal fired station, safe continued operation of the existing Uniper and National Grid assets, and long-term regeneration of the Cottam site. The ExA stated that protective provisions need to be complete to be included in an Order. The ExA inserted the additional wording at paragraph 190(1) as requested by EDF as this requires agreement to be reached between the parties which will be required in any case to facilitate the grid connection (paragraph 6.7.19).	through the formal process provided through compulsory acquisition or agreement with EDF outside of the draft Order. Paragraph 9.18. confirms that the Secretary of State has amended subparagraph 193(12) relating to notice to cease works during certain events. A compromise has been reached between the two parties within the latest protective provisions and 28 days has been inserted to ensure adequate notice whilst facilitating the delivery of the authorised development.	which impacts the power station site is limited to making the grid connection to an existing sub-station, the effect would be limited (paragraph 3.9.45). The ExA concluded that the SoS can be satisfied that the powers sought are necessary for the purpose of carrying out the proposed development and there would be no serious detriment to EDF's undertaking. The ExA stated that the protective provisions included in the recommended DCO are sufficient to ensure that there would be no serious detriment to EDF's undertaking and that the tests set out in sections127 and 138 of the PA2008 have been met (paragraphs 6.7.53 to 6.7.58).	lieu of such agreement (paragraph 6.19). The SoS confirmed that EDF concluded that its position was that its preferred protective provisions submitted at Deadline 6 which restricts the usage of compulsory acquisition powers without an agreement, must be included in the DCO (paragraph 6.20). The Secretary of State agreed with the ExA's recommended changes as set out in Table 2 [ER 5.5.1] to EDF's preferred form of protective provisions, with text included to make consent explicitly subject to the test of reasonableness, to ensure that there would be no serious detriment to EDF's undertaking as a result of the exercise of compulsory acquisition powers by the applicant (paragraph 6.21).			timescales for resolution at this stage, the Applicant is confident that agreement can be reached within the timescales of the Examination. The Applicant is engaged in ongoing discussions with EDF, with the Heads of Terms currently being negotiated. The Heads of Terms are now substantively agreed and the Applicant is confident that the terms of the agreement with EDF will be finalised before the Examination concludes.
RR-211	Network Rail (NR)	Interaction of Order limits with operational railway (Sheffield to Lincoln line and Torksey branch line). Concern relating to application of CA over its assets and disapplication of railway legislation.	Proposing trenchless crossing at 10m below NR assets. The Applicant has reached agreement with NR regarding protective provisions. The **Draft DCO [EN010142/APP/3.1 (Rev04)]** was updated at Deadline	ExA confirmed that it added wording to protective provisions to protect NR assets to ensure there is no serious detriment to NR's Undertaking (paragraph 6.7.28).	Protective provisions with NR agreed on 13 May with SoS agreeing to amend the DCO (paragraph 6.10).	Deadline 6, the applicant confirmed that protective provisions had been agreed and voluntary agreements were being negotiated (paragraph 6.7.67). The ExA concluded that it was satisfied that the inclusion of compulsory	The SoS confirmed at paragraph 6.15 that NR confirmed that negotiations regarding the protective provisions were still underway and nearing finalisation of a confidential agreement that will ensure the inclusions of the necessary	The applicant and NR confirmed at Deadline 7 that the protective provisions for the benefit of NR were agreed, and a framework agreement was being negotiated between the parties. The ExA concluded that it was satisfied	The SoS confirmed that protective provisions were agreed but that NR had not withdrawn their objection pending completion of the framework agreement.	The Applicant has reached agreement with NR regarding protective provisions. The **draft DCO [EN010142/APP/3.1(Rev06)]** was updated at Deadline 1 to include NR's standard protective provisions, which are supplemented by the terms of a

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		Concern regarding interaction of HGV and AIL routes with its assets. NR reviewing the Applicant's FCTMP.	1 to include NR's standard protective provisions, which are supplemented by the terms of a Framework Agreement that is currently being negotiated between the parties. Heads of Terms for an easement in respect of both operational and non-operational railways crossings provided by NR on 1 October. SoCG with NR is being progressed.			acquisition powers in respect of NR's land and interests would not result in serious detriment to the carrying on of its undertaking. The ExA also confirmed that it was satisfied that the inclusion of powers in respect of the extinguishment of rights were necessary for the purpose of carrying out the development. The ExA confirmed that the tests set out in s127 and s138 of the PA2008 were met (paragraph 6.7.68).	protective provisions for NR, which they expect to be concluded in the coming weeks.	that the inclusion of PPs in favour of NR would be sufficient to ensure there would be no serious detriment to its undertaking, noting that the parties were in the process of finalising the framework agreement.		Framework Agreement that is currently being negotiated between the parties. **In terms of protective provisions, therefore, the approach taken for the Tillbridge Solar Project is consistent with that taken for Gate Burton Energy Park and Cottam Solar Project.** The Applicant's discussions with NR regarding a property agreement are now advanced, with the Heads of Terms currently being reviewed by NR. The Applicant is confident that the terms of the agreement with NR will be finalised before the conclusion of the Examination.

Tillbridge Solar Project
EN010142

Appendix D – Applicant's Response to ExQ2.1.17

Document Reference: EN010142/APP/9.35

Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010

February 2025
Revision Number: 00

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Table of Contents

1. Introduction

1.1.1 This document provides the Applicant's response to the Examining Authority's question number Q2.1.17.

2. Examining Authority's Question Q2.1.17

Efficiency

The illustrated example day in [REP01-046] would appear to be a typical summer day when irradiance levels are high. Could the Applicant please provide a further example day of typical low irradiance levels, such as might be experienced during mid-winter, and also what the yields for this day over time might look like in comparison with the example day previously shown.

3. Applicant's Response

3.1.1 The Applicant provides three figures below to illustrate the requested information.

- **Figure 2.1.17.1** - Winter Day Energy Yield: The first figure presents a typical winter day energy yield at the Scheme's location. The grid connection capacity is set at 500 MW, and it can be observed that the energy yield remains consistently below this threshold due to lower irradiation levels, as referenced in the question.
- **Figure 2.1.17.2** - Comparison Between Winter and Summer Days: The second figure directly compares a typical winter day with a summer day, highlighting the seasonal differences in irradiation and their impact on energy yield. The variation in daylight hours and solar intensity between these periods is clearly illustrated.
- **Figure 2.1.17.3** - Annual Irradiation Profile: The third figure shows the typical yearly irradiation at the Scheme's location, with data sourced from Meteonorm, Solargis, and PVGIS. It provides an overview of Global Horizontal Irradiation (GHI), which represents total solar radiation on a horizontal surface, Diffuse Horizontal Irradiation (DHI), which accounts for the scattered portion of GHI, and Global incident irradiation in panel plane, which is the total solar radiation on a tilted or tracking surface adjusted for orientation.

3.1.2 These meteorological inputs are fundamental to energy yield simulations; however, for simplicity, they do not encompass all contributing factors that influence generation performance. The full energy yield assessment includes additional parameters beyond irradiation.

3.1.3 The projected output of any solar scheme is fundamentally determined by the available irradiation. Given the irradiation profile in the region, all projects within the area will exhibit similar generation patterns, with variations primarily influenced by factors including (but not limited to) grid connection capacity and the degree of overplanting. By implementing a higher overplanting ratio, the Scheme can optimise energy generation, ensuring a more consistent output throughout the year. This approach allows for increased energy production during winter months when irradiation levels are lower, thereby slightly reducing the seasonal variability of energy generation and improving overall grid utilisation.

Figure 2.1.17.1: Winter Day Energy Yield

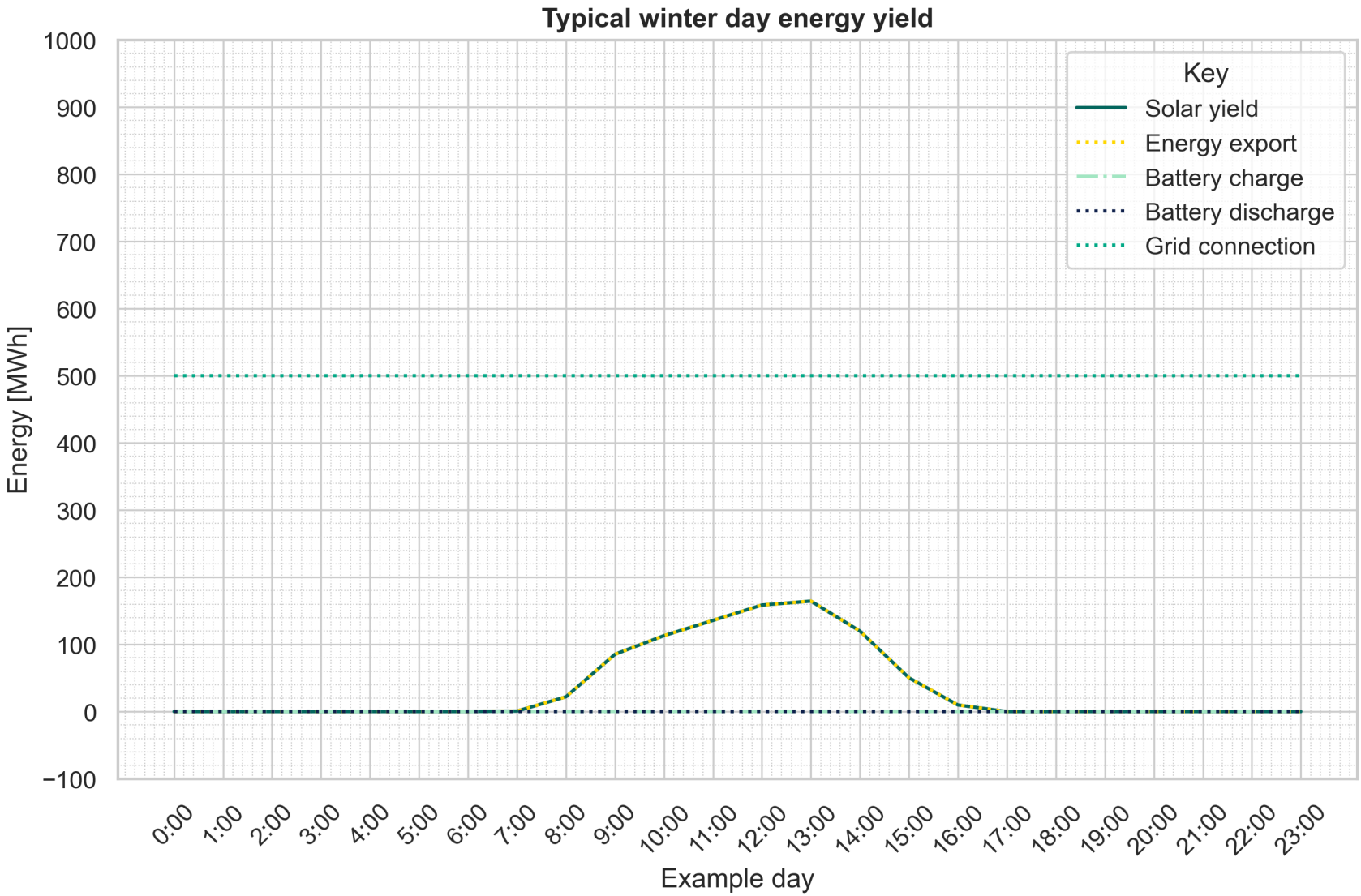


Figure 2.1.17.2: Comparison Between Winter and Summer Days

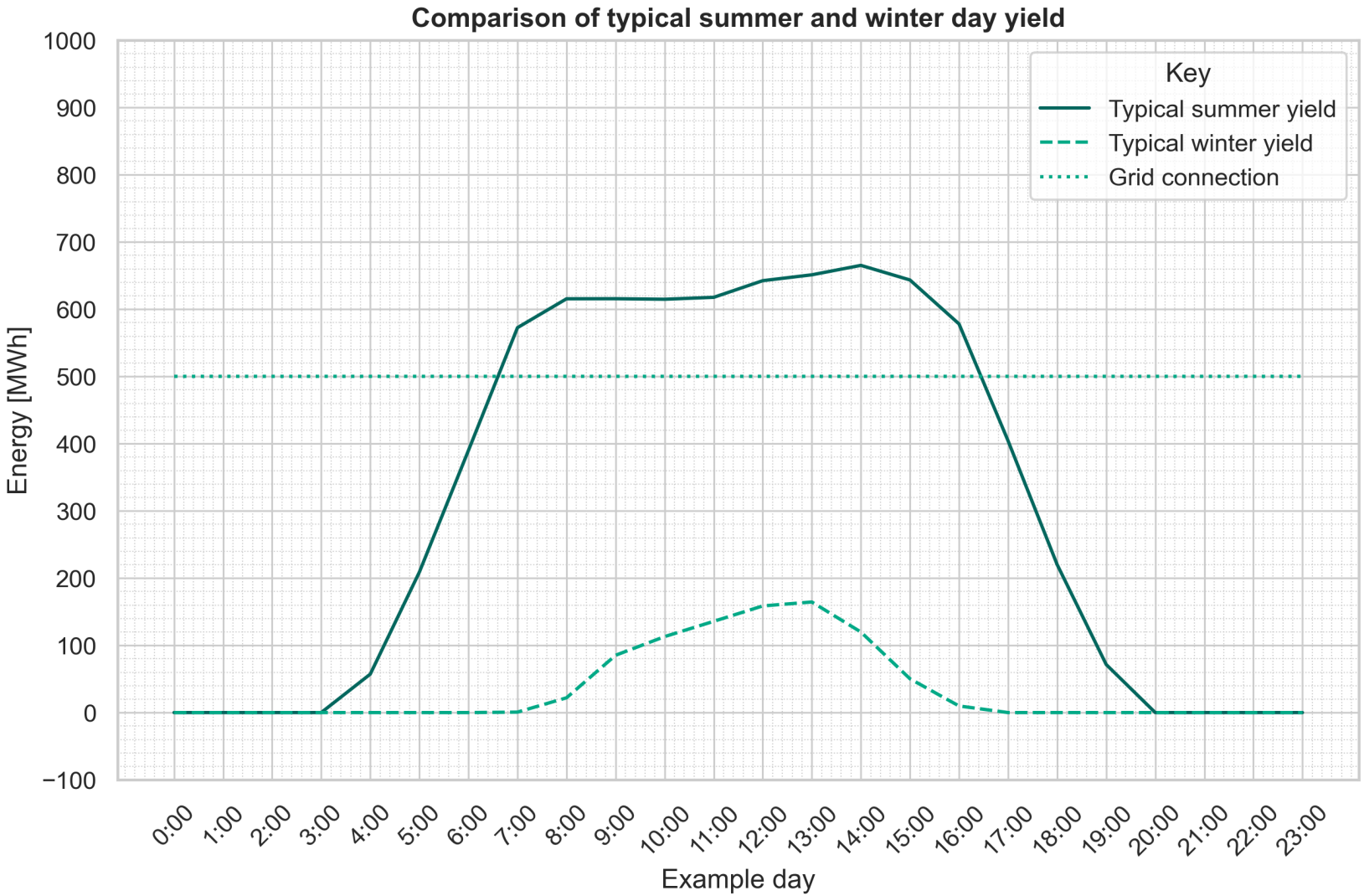
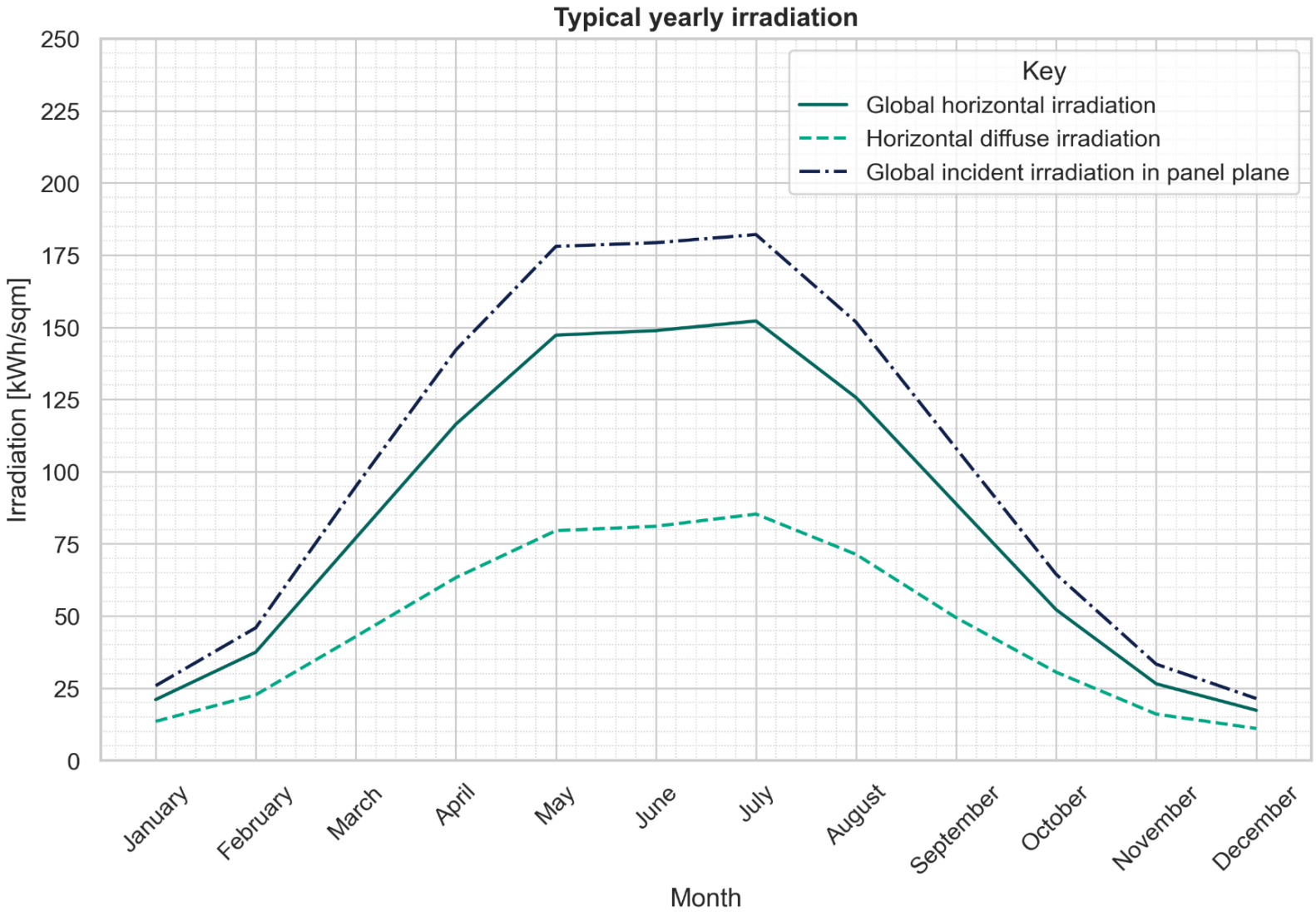


Figure 2.1.17.3: Annual Irradiation Profile



Tillbridge Solar

Tillbridge Solar Project
EN010142

Appendix E – Applicant's Response to ExQ2.7.6

Document Reference: EN010142/APP/9.35

Planning Act 2008
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Table of Contents

1. Introduction

1.1.1 This document provides the Applicant's response to the Examining Authority's question number Q2.7.6.

2. Examining Authority's Question Q2.7.6

Viking Winter Camp
The ExA would appreciate a comprehensive response to the following questions in a separate document:

The ExA notes that, in its response to the ExAs First Written Question 1.7.13, Lincolnshire County Council stated:

'LCC is not satisfied that this will cause less than substantial harm. There is no evidence put forward to support such a statement. Torksey Viking Winter Camp is a unique and incredibly important historic and archaeological site and any damage whatsoever to it is substantial harm. The nature of the site is such that there is potential for archaeology of national and even international importance may be found and impacted anywhere across the site.'

Could the applicant please provide response to the following questions:

A) *Please provide an explanation as to why the Winter Camp of the Viking Great Army - as referred to in the Planning Statement Appendix C paragraph 5.1.4 [REP3-028] – cannot be avoided by the development? And if it can please explain how embedded mitigation measures achieve this, noting NPS EN-1 paragraph 5.9.16?*
B) *Please could the applicant provide a plan showing the location and extent of this archaeological site in relation to the order limit boundary?*
C) *Could the applicant please confirm the cumulative effect of the proposed development along with Cottam and Gate Burton, bearing in mind the applicant's response to Q1.1.3 [REP3-062] and the assertion that there is a need 'to retain some minor flexibility within the Order limits to ensure that no one project prevents another coming forward should all DCOs be made'?*
D) *Could the applicant please confirm whether it is aware of this issue being addressed in relation to any of the previous NSIPs (such as Gate Burton or Cottam). If it has, could the applicant confirm what relevance this has to the same matter being considered in relation to this current application?*
E) *Please incorporate a response to ExA written question Q2.7.5.*
F) *Could the applicant please set out the implications for the planning balance to be applied in determining this application in a scenario where substantial harm, as asserted by LCC, is identified to the heritage asset (taking into account NPS EN-1 paragraph 5.9.6)?*
G) *Please could the applicant confirm exactly what survey work has been undertaken in relation to this archaeological site and explain how it has informed the siting of the proposed cable route with particular regard to the 'mitigation hierarchy' referred to in NPS EN-1?*

3. Applicant's Response

A) Please provide an explanation as to why the Winter Camp of the Viking Great Army - as referred to in the Planning Statement Appendix C paragraph 5.1.4 [REP3-028] – cannot be avoided by the development? And if it can please explain how embedded mitigation measures achieve this, noting NPS EN-1 paragraph 5.9.16?

3.1.1 The Winter Camp of the Viking Great Army at Torksey [MLI125067] is located to the south-west of the village of Marton, on a bluff overlooking the east bank of the River Trent. **Figure 1**, provided within Annex A of this document, shows the location and mapped extent of the asset, as provided by the Lincolnshire Historic Environment Record (HER) on 22 August 2023 when HER data was requested to inform the desk-based assessment prepared to support the Environmental Impact Assessment (EIA) for the Scheme. It is possible that the Winter Camp covered a larger extent, as suggested by a multi-year archaeological research project, the Torksey Viking Project, carried out by the Universities of York and Sheffield (Ref 1 and Ref 2). The results of the project, which mapped findspots of early medieval metalwork and coins, alongside the results of fieldwalking, targeted geophysical survey and test pitting, suggest that the extent of the Winter Camp of the Viking Great Army at Torksey may be larger than that recorded by the Lincolnshire HER, covering an area of approximately 55 hectares (ha).

3.1.2 The Cable Route Corridor is located approximately 120m to the north of the mapped extent of the asset as recorded by the Lincolnshire HER. Temporary access to the Cable Route Corridor is required at this location, to enable construction works for the installation of the cable connection beneath the River Trent by horizontal directional drilling.

3.1.3 Access for construction traffic from the local road network is limited, for example from the north via Trent Port Road, Marton, access is restricted by the extant flood defence embankment managed by the Environment Agency. Further constraints, including a watercourse draining into the River Trent and woodland and residential properties along the A156, also limit potential access points to the north, while the River Trent lies to the west.

3.1.4 Temporary access to the Cable Route Corridor from the east can be provided by the existing farm access from the A156 High Street. This temporary access route was developed in coordination with the other solar DCOs (Gate Burton Energy Park, Cottam Solar Project and West Burton Solar Project), as part of the shared Cable Route Corridor. All of these schemes have now been consented with the principal of the temporary access for construction approved by the Secretary of State. The Order limits for the Scheme incorporate this access route, known as Cable Route Corridor Access 6, which extends across the north-east corner of the Winter Camp of the Viking Great Army at Torksey [MLI125067]. The main Cable Route Corridor is located to the north and avoids the heritage asset. As noted in the **Planning Statement Appendix C**, paragraph 5.1.4 **[REP3-**

028], this will result in the disturbance or loss of a small section of surviving archaeological remains within the Order limits.

3.1.5 NPS-EN1 paragraph 5.9.16 states that 'A documentary record of our past is not as valuable as retaining the heritage asset, and therefore the ability to record evidence of the asset should not be a factor in deciding whether such loss should be permitted, and whether or not consent should be given.'

3.1.6 Selection of the Cable Route Corridor took a number of factors into consideration, rather than simply being able to use archaeological investigation to record the archaeological evidence that comprises the asset and from which its heritage significance is largely derived.

3.1.7 The design evolution of the shared Cable Route Corridor with the other solar DCOs has been a key principle in the design of the Scheme since the project inception meeting with the Planning Inspectorate in September 2022, as described at Section 4.6 Site Selection for the Cable Route Corridor, of **Chapter 4: Alternatives and Design Evolution** of the ES **[APP-035]**. The development of the Cable Route Corridor has, where practicable, included the avoidance of designated heritage assets and harm to their settings, refinement of access points so that these are shared, where possible, and coordinating strategic crossing points, including the River Trent.

3.1.8 Table 4-5: Design considerations for selecting the Cable Route Corridor of **Chapter 4: Alternatives and Design Evolution** of the ES **[APP-035]** sets out the operational and engineering requirements and planning and environmental constraints, which include the avoidance of *'Cultural heritage designations (Scheduled Monuments, listed buildings, registered parks and gardens, conservation areas, consideration of historic environment record)'*, noting that the Scheme '*has considered direct impacts as well as potential harm on these sites associated with setting'.*

3.1.9 Paragraph 3.4.7 of the Gate Burton Planning Design and Access Statement [EN010131/000405-EN010131/APP 2.2] also notes for the development of the shared Grid Connection Corridor (Cable Route Corridor), that best practice as adopted by the developers of the three other solar DCOs who *'worked together to design the cable routes such that they converge and share a section of the route'.* This approach means that *'the infrastructure required can be constructed cost effectively, whilst minimising disruption, adverse environmental effects and reducing the amount of land required for the projects. The developers have also worked together to reduce the impact on communities in close proximity to the grid connection routes and on known ecological and archaeologically sensitive areas adjacent to the River Trent, including the Viking Great Army Winter Camp on the eastern side of the River Trent'.*

3.1.10 Paragraph 4.6.38 of the same document [EN010131/000405-EN010131/APP 2.2] reiterates the design principle that 'infrastructure would be sited to avoid below ground archaeological features wherever possible including the Winter Camp of the Viking Army at Torskey which extends partially across the Grid Connection Corridor'.

3.1.11 While the asset is not avoided by Cable Route Corridor Access 6, sharing the access route with the Gate Burton Energy Park and the West Burton and Cottam Solar Projects minimises the land required for construction, thereby reducing potential direct and permanent impacts to the asset as a whole. Geophysical Survey undertaken along the northern side of Cable Route Access 6 (Field 113) for the Gate Burton Energy Park [EN010131/APP/3.3] did not identify any anomalies of archaeological or possible archaeological origin but did recorded evidence for north-south aligned medieval or post-medieval ridge and furrow cultivation extending into the Order limits. The assessment presented in the **Chapter 8: Cultural Heritage** of the ES **[APP-039]** assessed a worst case where topsoil stripping of a 6m wide access corridor was required for the installation of Cable Route Corridor Access 6, resulting in adverse effects to the asset. At this location, embedded mitigation measures cannot be relied upon to avoid or reduce the adverse effects arising from the construction of the Scheme. Consequently, additional mitigation measures comprising 'strip map and record excavation' would be required to mitigate adverse effects on the asset. The additional mitigation is defined as Site 25 in the **Archaeological Mitigation Strategy [REP1-025]**.

B) Please could the applicant provide a plan showing the location and extent of this archaeological site in relation to the order limit boundary?

3.1.12 Please refer to **Figure 1**, which is included in **Annex A** of this document.

C) Could the applicant please confirm the cumulative effect of the proposed development along with Cottam and Gate Burton, bearing in mind the applicant's response to Q1.1.3 [REP3-062] and the assertion that there is a need 'to retain some minor flexibility within the Order limits to ensure that no one project prevents another coming forward should all DCOs be made'?

3.1.13 The Applicant's response to Q1.1.3 [REP3-062] refers to specific key pinch points identified within **Chapter 4: Alternatives and Design Evolution** of the ES **[APP-035]** and illustrated on **Figure 4-7** of the ES **[APP-150]**. Specifically, two alternative access routes east and west into the main Cable Route Corridor south of Marton, but north of the Winter Camp of the Viking Great Army at Torksey [MLI125067]. As such, the quoted statement does not relate to the Winter Camp. Cable Route Corridor Access 6 provides sufficient access to the Cable Route Corridor for the Scheme and the other three DCO projects, which have now been consented.

3.1.14 With regard to the cumulative effect of the Scheme, paragraph 18.9.9 of **Chapter 18: Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]** acknowledges the potential for sections of the Cable Route Corridor to be shared by the other solar DCOs. It also establishes the worst-case position applied in the assessment of individual heritage assets in **Chapter 8: Cultural Heritage** of the ES **[APP-039]**.

3.1.15 The assessment of cumulative effects, presented in **Chapter 18 Cumulative Effects and Interactions** of the ES **[EN010142/APP/6.1(Rev03)]**, concludes that the cumulative effect of the Scheme, with the three other solar DCOs, will be the same as the worst-case effects scenario assessed for this Scheme in isolation, assuming the cable is within the Order limits and has the same level of mitigation secured. As such, no significant cumulative effects are considered likely during the construction of the Scheme. The Applicant considers that this conclusion still stands.

3.1.16 In the case of the Winter Camp of the Viking Great Army at Torksey [MLI125067], following the implementation of additional mitigation measures there would be a residual minor adverse effect which is not significant. As stated above, the resultant cumulative effect of the four solar DCOs combined, on this heritage asset, would be the same as the worst-case effects scenario assessed for this Scheme, and including the retention of some minor flexibility within the Order limits as stated in the Applicant's response to Q1.1.3, set out in the **Applicant's Response to Examining Authority's First Written Questions [REP3-062]**, to ensure that no one project prevents another coming forward, should all DCOs be made.

3.1.17 The assessment of cumulative effects for the Cottam Solar Project is set out in Section 13.10 of Chapter 13: Cultural Heritage of the Cottam Solar Project ES [EN010133/APP/C6.2.13]. Cumulative effects on the Winter Camp of the Viking Great Army at Torksey [MLI125067] are not individually assessed in the ES for the project, with only cumulative effects arising from changes to the setting of designated heritage assets presented. Cumulative impact assessments in the relevant ES chapter provides a more general statement regarding buried archaeological remains, and paragraph 13.10.2 states that *'It can be stated at the outset that in general terms, there will be cumulative effects from each of these schemes upon the overall archaeological resource, as it is likely that each will adversely impact upon buried archaeological remains within each of the different schemes' extents to some degree, even taking into account embedded and additional mitigation.'.*

3.1.18 Chapter 16: Cumulative Effects and Interactions of the Gate Burton Energy Park ES [EN010131/APP/3.3] does not identify any specific cumulative effects relating to the Winter Camp of the Viking Great Army at Torksey [MLI125067]. With reference to the shared Grid Connection Corridor, the Cottam and West Burton Solar Projects are identified with paragraph 16.5.5 noting that *'within the Shared Grid Connection Corridor, a joint approach to archaeological mitigation. This will streamline the mitigation and achieve a consistent approach within the shared area'.* Table 16-4 Summary of the cumulative effects identified within each of the technical chapters 6 to 15, only identifies possible cumulative effects on *Landscape setting on heritage assets.*

D) Could the applicant please confirm whether it is aware of this issue being addressed in relation to any of the previous NSIPs (such as Gate Burton or Cottam). If it has, could the applicant confirm what relevance this has to the same matter being considered in relation to this current application?

3.1.19 The issue of less than substantial harm to the Winter Camp of the Viking Great Army at Torksey [MLI125067] has not been addressed to the same degree for the other solar DCOs (Gate Burton, Cottam and West Burton), all of which utilise the shared cable route corridor, and Cable Route Corridor Access 6.

3.1.20 It should be noted that the impact assessments for both the Cottam and West Burton Solar Projects assess the heritage value of the Winter Camp of the Viking Great Army at Torksey [MLI125067] as being medium, i.e. of regional importance, and neither project identified the heritage asset as potentially being of national importance. This is reflected in the Planning Statements presented for both the Cottam and West Burton Solar Projects. Both documents included a harm statement setting out the potential harm to designated heritage assets and non-designated heritage assets that may arise from each project.

3.1.21 The Planning Statement for the Cottam Solar Project [EN010133/EX4/C7.5_C] considers the historic environment at Section 6.6. Non-designated heritage assets are discussed at paragraphs 6.6.26 to 6.6.32. A range of potential adverse effects '*mainly negligible beneficial, neutral or slight adverse effects to slight to moderate effects on non-designated archaeological remains'* are noted during construction at paragraph 6.6.29. Two non-designated archaeological assets and a number of non-designated historic landscapes are discussed, but the Winter Camp of the Viking Great Army at Torksey is not specifically referenced or potential harm to the asset individually assessed.

3.1.22 Paragraph 6.6.32 states 'As none of the non-designated assets are of equal significance to designated assets, then the substantial harm test does not apply. The significant public benefits of the Scheme clearly and demonstrably outweigh the reversible, low level, less than substantial harm to non-designated heritage assets, that would result. The Scheme, therefore, satisfies the requirements of NPS EN-1 (2011), NPS EN-1 (November 2023) and the NPPF in relation to its impact on non- designated heritage assets.'

3.1.23 Similarly, Section 6.6 of the Planning Statement for West Burton [EN010132/EX7/WB7.5_D] considered the historic environment with reference to the assessment of residual effects presented in Table 13.32: Residual effects following mitigation: Construction Phase of ES Chapter 13: Cultural Heritage [EN010132/APP-051]. Paragraph 6.6.45 of the Planning Statement notes that '*there could be potentially significant residual adverse effects on six non-designated archaeological remains'*. The Winter Camp of the Viking Great Army at Torksey, referenced as AR58 in the ES, is not one of the six non-designated archaeological assets identified as potentially experiencing a residual significant effect. It is included in Table 13.32 as a potential Neutral to Slight Adverse residual effect.

3.1.24 Paragraph 6.6.48 of the West Burton Planning Statement also states that 'As none of the non-designated assets are of equal significance to designated assets, then the substantial harm test does not apply. The significant public benefits of the Scheme set out at Section 4.0 of the Planning Statement

clearly and demonstrably outweigh the reversible, low level, less than substantial harm to non-designated heritage assets, that would result. The Scheme, therefore, satisfies the requirements of NPS EN-1 (2011), NPS EN-1 (November 2023) and the NPPF in relation to its impact on non-designated heritage assets.'

3.1.25 In the case of the Gate Burton Energy Park, the impact assessment, presented in ES Chapter 7: Cultural Heritage of the Gate Burton Energy Park ES [EN010131/APP/3.1], considered the Winter Camp of the Viking Great Army at Torksey [MLI125067] to be of high heritage value, '*for its ability to contribute to our understanding of national and potentially international Viking activity.'* It considered that the works required for the access track [Access 6], within the Gate Burton Grid Connection Corridor, '*would result in partial loss of a small proportion of this asset, which would slightly affect our ability to understand the heritage interests of the assets'*. This was assessed as a permanent low magnitude of impact to an asset of high value, resulting in a moderate adverse significance of effect, prior to the implementation of additional mitigation measures.

3.1.26 Section 7.5 Cultural Heritage of the Gate Burton Planning Design and Access Statement [EN010131/APP/2.2] considered the historic environment. Paragraph 7.5.2 states that '*No significant adverse effects are predicted on designated or undesignated heritage assets with the mitigation proposed*.'

3.1.27 The Winter Camp of the Viking Great Army at Torksey (MLI125067) is further considered at paragraph 7.5.20, where it is identified as one of ten non-designated heritage assets that, without additional mitigation, would experience a significant effect. This concluded that *'The proposed works in the Solar and Energy Storage Park would result in partial loss of a small proportion of this asset, which would slightly affect our ability to understand the heritage interests of the asset'*.

3.1.28 Paragraph 7.5.21 established that additional mitigation measures, for the ten non-designated archaeological assets which would otherwise experience significant adverse effects, had been agreed in principle with the Archaeological Advisors to LCC and were set out in the Gate Burton Archaeological Mitigation Strategy [EN010131/APP/7.6] and secured by Requirement 11 of the Gate Burton DCO [EN010131/APP/6.1]. The paragraph concluded that, with regard to the ten non-designated archaeological assets, the proposed mitigation measures would reduce the magnitude of impact on individual assets, resulting in a residual minor adverse effect, which would not be significant.

3.1.29 Paragraph 4.72 of the Gate Burton Final Decision Letter summarised the ExA's conclusions on the historic environment, with reference to the ten non-designated archaeological assets, which includes the Winter Camp of the Viking Great Army at Torksey (MLI125067). The ExA concluded that the 10 non-designated heritage assets would experience a moderate adverse effect, which is considered significant, but noted the additional mitigation through archaeological excavation and recording were secured through the Archaeological Mitigation Strategy. In noting that the conclusion of the Gate

Burton ES was a residual minor adverse effect, *'the ExA was satisfied that, both individually and cumulatively, the harms identified would be less than substantial [ER 3.6.54]'*.

3.1.30 Paragraphs 4.77 and 4.78 of the Gate Burton Final Decision Letter present the conclusions of the Secretary of State. The Secretary of State did not consider that the additional mitigation measures, while required, did not amount to mitigation of harm, finding that the non-designated heritage assets would experience a residual moderate adverse significant effect. Nevertheless, taking into account potential effects to both designated and non-designated heritage assets, the Secretary of State considered the '*resultant harm would be less than substantial*'.

3.1.31 All three of the other solar DCOs have been consented using the shared Cable Route Corridor Access 6 and the proposed additional mitigation, in the form of archaeological excavation and recording (strip, map and record), as is put forward in the **Archaeological Mitigation Strategy [REP1-025]** for the Scheme. The Applicant maintains that the effect, though significant, does not amount to substantial harm, as per the conclusions of the other three solar DCOs, and highlights that the acceptability of this conclusion as evidenced in the previous Examining Authorities' reports and the Secretary of State's Decision Letters for the other three solar DCOs, is particularly relevant in relation to this current application.

E) Please incorporate a response to ExA written question Q2.7.5.

3.1.32 As set out in the Applicant's response to ExA written question Q2.7.5, the Winter Camp of the Viking Great Army at Torksey is a recorded non-designated heritage asset [MLI125067] on the Lincolnshire Historic Environment Record. As noted in paragraph 8.9.415 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]:**

'The extensive archaeological remains and artefactual evidence associated with the winter camp, although not protected through designation as a scheduled monument, have considerable archaeological and historic interest and forms one of a small number of historically documented sites able to provide evidence for how the Viking army functioned, moved through the landscape, the economy, lifestyles and material culture of those in the army, in addition to early medieval settlement and industrial activity. The value of the asset is derived from its considerable archaeological and historic interest, which have the potential to be of national importance, it is therefore considered to be of high value'.

3.1.33 The Planning Practice Guidance (2019) (Ref 3), paragraph 041, identifies two categories of non-designated heritage assets of archaeological interest:: (1) those that are demonstrably of equivalent significance to scheduled monuments and are therefore considered subject to the same policies as those for designated heritage assets (National Planning Policy Framework footnote 75 (Ref 5)). These are of three types specifically, those that have yet to be formally assessed for designation, those that have been assessed as being nationally important and therefore, capable of designation, but

which the Secretary of State for Culture, Media and Sport has exercised his/her discretion not to designate, and those that are incapable of being designated by virtue of being outside the scope of the Ancient Monuments and Archaeological Areas Act 1979 because of their physical nature, and (2) other non-designated heritage assets of archaeological interest.

3.1.34 The Winter Camp of the Viking Great Army at Torksey [MLI125067] falls within the first of these two categories, being a non-designated asset which is regarded for the purposes of assessment as equivalent in heritage value to a designated scheduled monument, due to its particular sensitivities as of potential national importance.

3.1.35 Evidence for buried archaeological remains associated with the Winter Camp Viking Great Army has been presented in **Appendix 8-2: Cultural Heritage Desk Based Assessment** of the ES **[APP-059].** Previous non-intrusive surveys in the area of Cable Route Corridor Access 6 have to date identified limited archaeological evidence. The magnetometer survey by the Torksey Viking Project investigated a north-south aligned linear transect, extending southward from the Cable Route Corridor into the Winter Camp of the Viking Great Army. Area B of the survey extends across the western end of Cable Route Corridor Access 6. This revealed no anomalies that could be interpreted as archaeological in origin (Ref 6).

3.1.36 Non-intrusive surveys, undertaken to support the Gate Burton Energy Park DCO, have similarly not identified substantial evidence for the Winter Camp of the Viking Great Army [MLI125067] within the Order limits of Cable Route Corridor Access 6. The aerial photography and LiDAR analysis report presented as Appendix 7-C: of the Gate Burton ES [EN010131/APP/3.3] included the fields (Fields 113, 114 and 223), to the south-west of Marton, through which Cable Route Corridor Access 6 extends. The analysis of aerial photographs and LiDAR imagery did identify earthworks and cropmarks, representing banks and ditches and interpreted as a post-medieval flood defence, a narrow bank flanked by small ponds, and a former post-medieval field boundary in Field 113 to the north of Cable Route Corridor Access 6. A further post-medieval field boundary, visible as a low bank, was also recorded in Field 223 immediately south of and extending into Cable Route Corridor Access 6.

3.1.37 A geophysical survey, comprising detailed magnetometry, was also undertaken with the results detailed within Appendix 7-D: Geophysical Survey Fieldwork Reports Part 3 of the Gate Burton ES [EN010131/APP/3.3]. This survey included Field 113 which extends northwards from Cable Route Corridor Access 6. No geophysical anomalies of archaeological or possible archaeological origin were identified in Field 113. The survey did, however, record evidence for north-south aligned medieval or post-medieval ridge and furrow cultivation extending into the Order limits.

3.1.38 The results of these surveys support the assertion, made at paragraph 6.1.5 of **Appendix C** of the **Planning Statement [REP3-028]**, that '*the focus of*

the settlement activity and associated cemetery lie to the southwest of the Order limits towards the highest point of the bluff'.

3.1.39 As the Examining Authority has noted, paragraph 8.9.417 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]** concludes that the asset would experience a moderate adverse effect that would be significant, taking into account embedded mitigation and prior to additional mitigation. In terms of the conclusion in **Appendix C: Heritage Harm Statement** of the **Planning Statement [REP3-028]** that the Scheme would result in less than substantial harm to the significance of the Torksey Viking Winter Camp [MLI125067], paragraph 018 of The Planning Practice Guidance (2019) emphasises that substantial harm is a high test and that it is the degree of harm to the asset's significance rather than the scale of the development which needs to be assessed. The PPG also notes that 'works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all'.

3.1.40 Paragraph 5.9.31 of the NPS EN1 reflects the NPPF (at paragraph 214) in referring to *"…substantial harm to (or total loss of significance of) a designated heritage asset…"*. Substantial harm would therefore equate to the comprehensive, or total, loss of a heritage asset or, its heritage significance. In the case of the Winter Camp Viking Great Army, this would mean the loss of key elements of its archaeological or historic interest from which the understanding of the asset and its heritage value is largely derived.

3.1.41 Whilst the works have the potential to disturb or remove possible surviving archaeological remains, within the Winter Camp of the Viking Great Army, the proposed temporary access road (Cable Route Corridor Access 6) would impact a relatively small section of the overall archaeological site. The heritage asset is estimated to extend between approximately 26 ha, as mapped by the Lincolnshire HER, and up to 55 ha in size, as suggested by the Torksey Viking Project. Even though the works would cause harm, the harm would not be 'substantial', having regard to the scale of the harm or loss compared to the remainder of the asset Winter Camp of the Viking Great Army at Torksey [MLI125067] which would remain preserved and intact, not impacted by the Scheme, and experiencing no loss or change.

3.1.42 In this instance, the impact to the value of the Winter Camp of the Viking Great Army at Torksey [MLI125067] is assessed as 'Low' in paragraph 8.9.417 of **Chapter 8: Cultural Heritage** of the ES **[APP-039]** and this equates with causing less than substantial harm. Therefore, the conclusion in the Heritage Harm Statement was that there would be 'less than substantial harm' to this asset, as the asset's heritage significance or high value would not be significantly lost or altered.

F) Could the applicant please set out the implications for the planning balance to be applied in determining this application in a scenario where substantial harm, as asserted by LCC, is identified to the heritage asset (taking into account NPS EN-1 paragraph 5.9.6)?

3.1.43 The Applicant maintains that the Scheme will result in less than substantial harm to the Winter Camp of the Viking Great Army at Torksey [MLI125067], for the reasons set out above and detailed in **Appendix C** of the **Planning Statement [REP3-028]**. Without prejudice to the Applicant's position, the Applicant provides the following response to the hypothetical scenario posed by the ExA.

3.1.44 Paragraph 5.9.6 of NPS EN-1 states:

"Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments or Protected Wreck Sites should be considered subject to the policies for designated heritage assets."

3.1.45 Within the scenario of substantial harm posed to the Applicant, substantial harm to the asset as an equivalent Scheduled Monument should be wholly exceptional due to the significance of the asset and, in accordance with paragraph 5.9.31 of NPS EN-1, where the proposed development will lead to substantial harm to a designated heritage asset the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm to, or loss of significance is necessary to achieve substantial public benefits that outweigh that harm or loss.

3.1.46 In applying the planning balance, a finding of substantial harm would be given very great weight against the Scheme unless it can be demonstrated that substantial public benefits outweigh the perceived harm. In addition, the decision maker would also have regard to the duties under Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 ensuring that regard is had to the desirability of preserving the heritage asset.

3.1.47 However, it is important to emphasise that the Scheme is critical national priority (CNP) infrastructure (per the definition in paragraph 4.2.5 of NPS EN-1). Paragraph 3.2.6 of NPS EN-1 confirms that there is a need for CNP infrastructure like the Scheme, and that this need is urgent. Paragraph 3.2.7 of NPS EN-1 goes on to state that substantial weight is to be given to this need in applying the planning balance.

3.1.48 As the Scheme is CNP infrastructure, the starting point under NPS EN-1 is that the Scheme is to be treated "as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires clear outweighing of harm, exceptionality or very special circumstances" (paragraph 4.2.16). This specifically includes the test relating to substantial harm to a heritage asset (paragraph 4.2.17). It is therefore the Applicant's position that, even if it was to be found that the Scheme would result in substantial harm to the heritage asset (which the Applicant maintains is not the case), the presumption under NPS EN-1 is that this harm is outweighed by the benefits of the Scheme, and that no exceptional circumstances exist in respect of the Scheme that would displace this presumption.

3.1.49 The Scheme will derive benefits in the form of providing significant carbon savings in energy generation and positively contributing towards the path to net zero affording substantial positive weight in the planning balance. The

Scheme will include substantial biodiversity enhancements affording significant positive weight and the inclusion of BNG in accordance with the provisions of the **Framework Landscape and Ecological Management Plan (FLEMP) [EN010142/APP/7.17(Rev05)]** affording moderate positive weight. The Scheme will also include the provision of two new permissive paths within the Principal Site for the duration of the solar generating station increasing public access to recreational routes for a range of users affording moderate positive weight. The Scheme will generate significant employment during construction and deliver economic benefits through the securement of a SSCEP to be secured through requirement 19 within the **draft DCO [EN010142/APP/3.1(Rev06)]** to be afforded moderate positive weight. There will be beneficial effects on farming circumstances with the Scheme providing a new diversified enterprise for landowning farm businesses with this also being afforded moderate positive weight. Finally, moderate positive weight should be attached in the planning balance to the recovery of soil function for agricultural production following the decommissioning of the Scheme.

3.1.50 Matters to carry some weight against the Scheme, in addition to the hypothetical substantial harm to the heritage asset, relate to landscape and visual and cumulative effects, which would both carry moderate negative weight in the planning balance. Limited negative weight would also be associated with the impact upon soils and agriculture (minimal loss of BMV – 0.92ha to woodland) and temporary impacts during construction upon the B1241, North of Fleets Road.

3.1.51 In weighing the above, against the statutory duty to give considerable importance and weight to the harm to designated assets and taking into account the policy presumption that the Scheme as CNP infrastructure meets any tests requiring a clear outweighing of harm or exceptionality, the Applicant considers that, in this hypothetical scenario, there would be clear and convincing justification for the levels of harm identified.

3.1.52 It is the Applicant's position that the substantial benefit derived from the Scheme as CNP infrastructure alongside the other significant benefits described above would result in benefits of sufficient positive weight in the planning balance to justify and outweigh the harm to the heritage asset. In this case, the public benefit of the Scheme would decisively outweigh the level and degree of harm to the heritage asset.

G) Please could the applicant confirm exactly what survey work has been undertaken in relation to this archaeological site and explain how it has informed the siting of the proposed cable route with particular regard to the 'mitigation hierarchy' referred to in NPS EN-1?

3.1.53 As noted at paragraph 3.1.30 of this Technical Note, archaeological surveys have been previously undertaken by the Torksey Viking Project and the Gate Burton Energy Park project. The relevant results of these have been summarised in section 4.3 of **Appendix 8-2: Cultural Heritage Desk Based Assessment** of the ES **[APP-059]**. Paragraphs 4.4.88 to 4.4.92 of the Cultural Heritage Desk Based Assessment also describe the non-designated

heritage asset the Winter Camp of the Viking Great Army [MLI125067] and summarise the evidence recorded during surveys undertaken by the Torksey Viking Project; notably geophysical surveys completed in 2012.

3.1.54 A magnetometer survey by the Torksey Viking Project investigated a north-south aligned linear transect extending southward from the Cable Route Corridor into the Winter Camp of the Viking Great Army (survey areas A and B, which extend across the western end of Cable Route Corridor Access 6). A third larger survey area (Area C) extended across an area of the heritage asset to the south of Cable Route Corridor Access 6 (Ref 6).

3.1.55 A programme of non-intrusive surveys and intrusive trial trench evaluation were undertaken in advance of the Gate Burton Energy Park project within the Cable Route Corridor and the results provided to the Applicant to inform the ES for the Scheme. Several of these surveys extended into the area of the Winter Camp of the Viking Great Army [MLI125067]. The first comprised an aerial photography and LiDAR analysis report presented as Appendix 7-C: of the Gate Burton ES [EN010131/APP/3.3]. The survey included the fields (Fields 113, 113a, 114 and 223) to the south-west of Marton, through which Cable Route Corridor Access 6 extends.

3.1.56 A geophysical survey, comprising detailed magnetometry, was also undertaken between April and May and during September 2022. The results of the geophysical survey are detailed within Appendix 7-D: Geophysical Survey Fieldwork Reports Part 3 of the Gate Burton ES [EN010131/APP/3.3]. This survey included Field 113 and Field 113a.

3.1.57 Within Field 113a the geophysical survey identified archaeological anomalies comprising an orthogonal pattern, of linear 'ditch-like' features, with several discrete positive anomalies that may represent 'pits'. These features remain undated and indicate archaeological activity of unknown origin. It is, however, possible that they are associated with the Winter Camp of the Viking Great Army, or a Romano-British farmstead identified during geophysical surveys completed by the Torksey Viking Project approximately 160m southwest of the Order Limits.

3.1.58 NPS EN-1 paragraph 4.1.5 establishes a hierarchy of measures that should be taken into account when considering *'…potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts…'*. These measures would avoid, reduce, mitigate or compensate for any adverse impacts.

3.1.59 As noted at paragraph 3.1.7 of this document the design evolution of the shared Cable Route Corridor with the other solar DCOs has been a key principle in the design of the Scheme since the project inception meeting with the Planning Inspectorate in September 2022. This has included, where practicable, the avoidance of designated heritage assets and harm to their settings, refinement of access points so that these are shared, where possible, and coordinating strategic crossing points, including the River Trent.

3.1.60 With regards to the Winter Camp of the Viking Great Army [MLI125067], paragraph 3.5.1 of the **Joint Report on Interrelationships between Nationally Significant Infrastructure Projects Part 1 of 3 [REP3-031]**, submitted with the Application, notes that environmental avoidance/mitigation to reduce the overall environmental effects in close proximity to the Cable Route Corridor included the known *'archaeologically sensitive areas adjacent to the River Trent, including the Viking Great Army Winter Camp (MLI125067) on the eastern side of the River Trent'*.

3.1.61 This avoidance/mitigation by design has been represented by the routing of the main Cable Route Corridor to the north of the mapped extent of the Winter Camp of the Viking Great Army and refinement of the Order limits to reduce the land take required for the main access point from the A156.

3.1.62 The **Design and Access Statement [AS-031]** details the key stages of the development of the Cable Route Corridor design. The collaboration of the Applicant with the other solar DCO schemes during this process led to a significant reduction of the broad Cable Route Corridor presented at scoping, which extended across the Winter Camp of the Viking Great Army [MLI125067], to the more refined Cable Route Corridor presented at the PEIR stage. This iteration of the design reduced the width of the Cable Route Corridor, which avoided the Winter Camp of the Viking Great Army [MLI125067] and first introduced Cable Route Corridor Access 6. The current Order limits provide a further reduction of the width of the Cable Route Corridor to the north of the Winter Camp of the Viking Great Army [MLI125067].

3.1.63 The design evolution of the shared Grid Connection Corridor (Cable Route Corridor) is also described in Chapter 3: Alternatives and Design Evolution of the Gate Burton Energy Park ES [EN10131/APP/3.1]. Table 3-1: Main Design Iterations for the Order limits summarised the key stages and outcomes of the shared Grid Connection Corridor design development. Section 3.5 Alternative Cable Route Corridors describes the optioneering and route selection process which led to the selection of the shared Grid Connection Corridor.

3.1.64 Route optioneering, undertaken during non-statutory consultation in February 2022, included consideration of four route options developed for the Cottam Solar Project, including both Overhead Line and buried cable solutions. Selection of the preferred route option was guided by potential impacts to the setting of multiple designated heritage assets (scheduled monuments and listed buildings), ecological constraints, the River Trent and existing flood defences.

3.1.65 Paragraph 3.5.5 of the Chapter 3: Alternatives and Design Evolution of the Gate Burton Energy Park ES [EN10131/APP/3.1] notes that '*Corridor C1 was identified as providing the best balance of minimising impacts on the environment and the local community whilst meeting the technical and constructability feasibility requirements'.*

3.1.66 As noted above, paragraph 4.6.38 of the Gate Burton Planning Design and Access Statement [EN010131/000405-EN010131/APP 2.2] reiterates the

design principle that *'infrastructure would be sited to avoid below ground archaeological features wherever possible including the Winter Camp of the Viking Army at Torskey which extends partially across the Grid Connection Corridor'*.

3.1.67 The role of archaeological surveys in this design development is demonstrated by the evolution of the Gate Burton Energy Park Grid Connection Corridor, which appears to have originally included a temporary construction access further south from the current Cable Route Corridor Access 6, and that crossed Field 113a. The identification of potentially significant archaeological anomalies, by geophysical survey, within this field, possibly associated with the Winter Camp of the Viking Great Army or a Romano-British farmstead, appears to have informed a move north to the current alignment for Cable Route Corridor Access 6. This change is noted at page 20 of Table 3-1: Main Design Iterations for the Order limits, page 20, in the Chapter 3: Alternatives and Design Evolution of the Gate Burton Energy Park ES [EN10131/APP/3.1] as a reduction of the Order Limits within the Grid Connection Corridor *'…following review of additional survey information and further feasibility studies'.*

3.1.68 Embedded mitigation measures, detailed at paragraph 7.9.4 of Chapter 7: Cultural Heritage of the Gate Burton Energy Park ES [EN010131/APP/3.1], also highlight that *'The routing and siting for the Grid Connection Corridor was influenced by the identification of potentially significant below ground archaeological remains along the route corridor, with the route selected to avoid significant archaeological remains as far as practicable.'* The additional mitigation measures proposed by the Scheme and the other solar DCO schemes are aligned and will further compensate for the partial loss of any surviving archaeological remains associated with the Winter Camp of the Viking Great Army [MLI125067] within the Order limits. The shared Cable Route Corridor, now consented for each of the other three solar DCO projects, has been adopted for the Scheme, and includes the use of Cable Route Corridor Access 6.

References

Ref 1 Hadley,DM, Richards JD et al, in Current Archaeology 2022. From tents to towns: tracing Torksey after the Vikings. Available at: https://archaeology.co.uk/articles/from-tents-to-towns-tracing-torksey-after-the-vikings.htm Accessed February 2024.

Ref 2 Hadley DM, Richards JD. THE WINTER CAMP OF THE VIKING GREAT ARMY, ad 872–3, TORKSEY, LINCOLNSHIRE. The Antiquaries Journal. 2016;96:23-67. doi:10.1017/S0003581516000718 Available at: https://www.cambridge.org/core/journals/antiquaries-journal/article/winter-camp-of-the-viking-great-army-ad-8723-torksey-lincolnshire/C54BB610EA9E0E567DC2C0622BA753EB Accessed February 2024.

Ref 3 Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (2019) Planning Practice Guidance: Historic Environment. Accessed at https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment on 20/02/2025

Ref 4 Department for Energy Security and Net Zero (2024). Overarching National Policy Statement for Energy EN-1. Accessed on 12/02/2025 at https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1

Ref 5 Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (2025). National Planning Policy Framework. Accessed on 18/02/2025 at: https://www.gov.uk/government/publications/national-planning-policy-framework--2

Ref 6 Brown, H. (2012). Magnetometer survey of land north of Torksey, Lincolnshire. The University of York.

Annex A – Figure 1

Revision: 0 Drawn: LL Checked: IW Approved: CW Date: 2025-02-20

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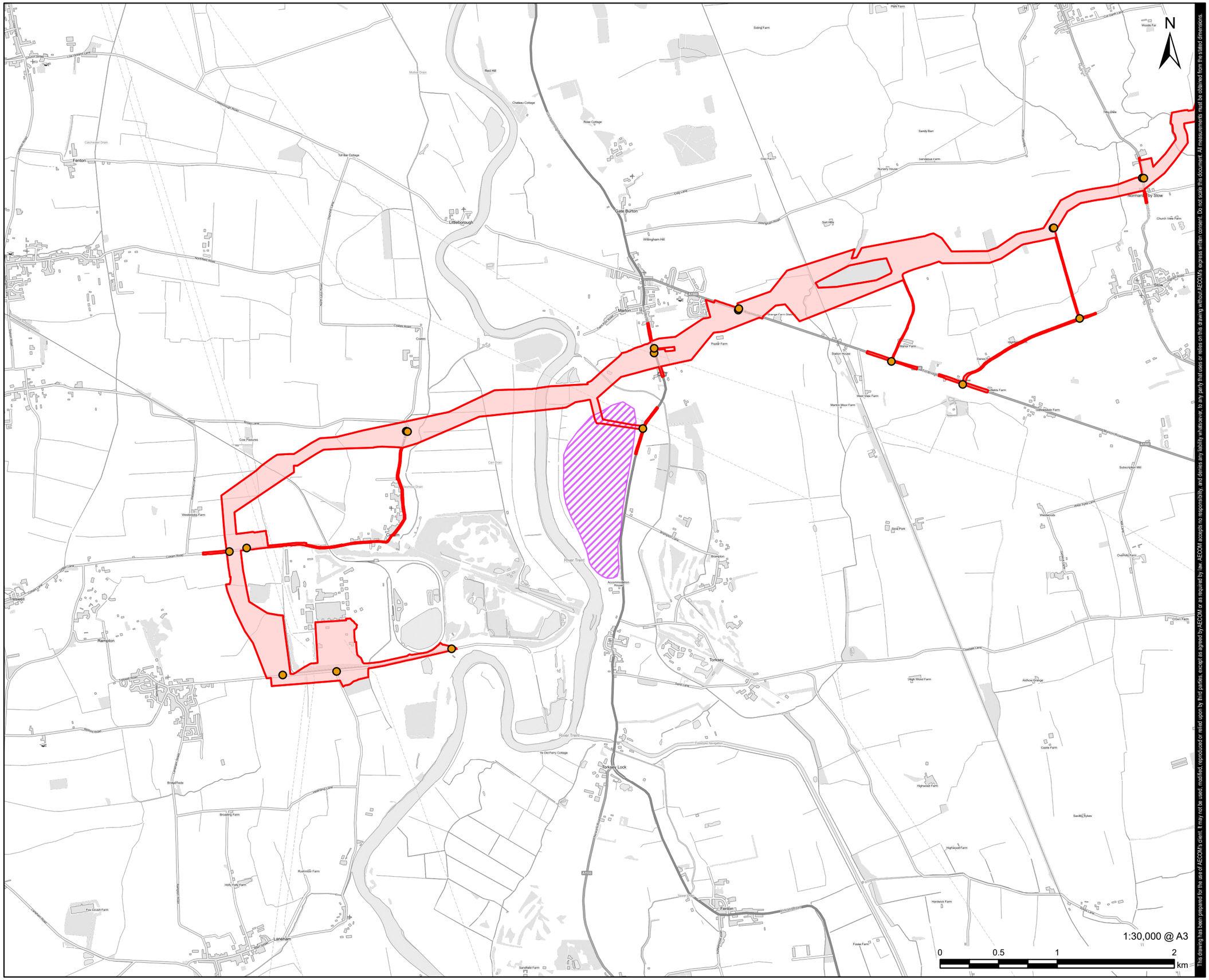

AECOM

PROJECT

Tillbridge Solar Project

CLIENT

Tillbridge Solar Ltd

CONSULTANT

Aldgate Tower
2, Leman Street
London, E1 8FA
United Kingdom
aecom.com

LEGEND

- Tillbridge Solar Order Limits
- Tillbridge Solar Cable Route Corridor
- The Winter Camp of the Viking Great Army at Torksey (MLI125067)

Access Location

- Cable Route Corridor Access

NOTES

ISSUE PURPOSE

DCO Submission

PROJECT NUMBER

60682158

FIGURE TITLE

Location of the Winter Camp of the Viking Great Army at Torksey (MLI125067)

FIGURE NUMBER

Figure 1

Tillbridge Solar Project
EN010142

Appendix F – Applicants Response to ExQ2.9.8

Document Reference: EN010142/APP/9.35

Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010

February 2025
Revision Number: 00

tillbridgesolar.com

@: info@tillbridgesolar.com T: 0800 046 9643

Revision: 0 Drawn: LL Checked: AD Approved: AT Date: 2025-02-25

Filename: \\na.aecomnet.com\lfs\EMEA\London-UKLON06\Legacy\UKLON06PFPSW001\UKLON06PFPSW001-V1\DPEL\Library\GIS_DATA\Projects\Greta III\Layout\Tillbridge Solar\Examination\ZTV_UpdatedCumulatives\ZTV_UpdatedCumulatives.aprx

NOTES

Contains Ordnance Survey Data © Crown Copyright and database right 2025. All content is available under the Open Government licence v3.0 unless otherwise stated © Crown Copyright 2024.

1. The Zone of Theoretical Visibility (ZTV) is based upon points along the external boundary to the indicative solar panel area with an anticipated panel height of 3.5m for Tillbridge and Gate Burton, 4.5m for Cottam and West Burton, and an observer height of 1.5m. It does not reflect all theoretical visibility arising from panels located within the external solar panel boundary.
2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution. To provide evidence of theoretical screening, two additional databases have been included: OS Open Data with assumed height for buildings of 8m; and the Forestry Commission National Forestry Inventory (2021) and OS Open Data, with an assumed height of 11m.
3. The ZTV has been produced in order to inform 'on the ground' visual assessment and does not include effects of screening derived from hedgerows or trees not included within the woodland database noted above.
4. ZTV calculated using ArcGIS 10.8.1 Viewshed tool.
5. Reproduced from Ordnance Survey digital map data © Crown copyright 2025. All rights reserved. Licence number 0100031673.

Note: Theoretical visibility of Tillbridge Scheme only not shown on plan.

N

1:77,000 @ A3

0 0.5 1 2 km

AECOM

PROJECT

Tillbridge Solar Project

CLIENT

Tillbridge Solar Ltd

CONSULTANT

Aldgate Tower
2, Leman Street
London, E1 8FA
United Kingdom
aecom.com

LEGEND

- Tillbridge Solar Project Order limits
- Tillbridge Solar Panel Boundary
- Cottam Solar Project Order limits
- Cottam Solar Panel Boundary
- Gate Burton Energy Park Order limits
- Gate Burton Solar Panel Boundary
- West Burton Solar Project Order limits
- West Burton Solar Panel Boundary
- Building
- Woodland
- Theoretical Visibility of Tillbridge Scheme combined with one or more Solar DCO schemes

ISSUE PURPOSE

DCO Submission

PROJECT NUMBER

60677969

FIGURE TITLE

Zone of Theoretical Visibility – Tillbridge Solar Panels Viewshed compared to Other Solar DCOs Solar Panels

FIGURE NUMBER

Appendix F - Applicant's Response to ExQ2.9.8

Tillbridge Solar Project
EN010142

Appendix G – Applicants Response to ExQ2.10.1

Document Reference: EN010142/APP/9.35

Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010

February 2025
Revision Number: 00

tillbridgesolar.com

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e-STORAGE
A subsidiary of Canadian Solar

SolBank 2.0

Energy Storage System

S-3328-2h-NA | S-3328-4h-NA

e-STORAGE is a leading company specializing in the design, manufacturing, and integration of battery energy storage systems for utility-scale applications. At the core of the e-STORAGE platform is SolBank, a self-manufactured, lithium-iron phosphate chemistry-based battery engineered for utility-scale applications.

Through our innovative solutions, we aim to optimize grid operations, promote clean energy integration, and foster a more resilient and sustainable energy landscape.

Together, we are building a brighter, greener future for all.

e-STORAGE SolBank 2.0 is a modular, flexible, and cost-effective battery energy storage product. Multiple units could be connected in parallel. SolBank 2.0 is designed to meet energy storage needs for today and for the future.

PRODUCT CERTIFICATES*

UL1973, UL9540, UL9540A, UN38.3 / UN3536

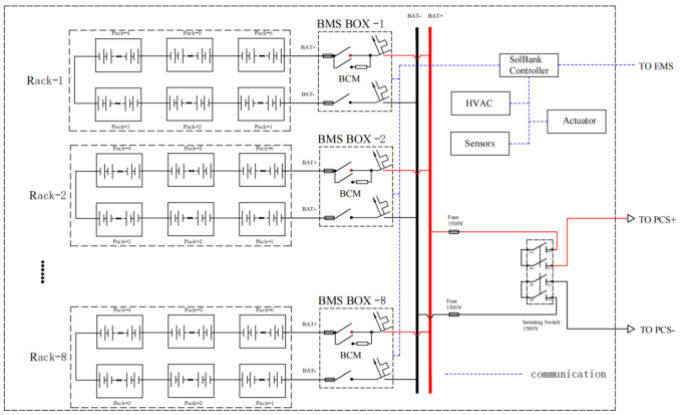
*The specific certificates applicable to each market, and not all certifications listed herein will simultaneously apply to the products you order or use. Please contact your local e-STORAGE sales representative to confirm the specific certificates applicable in the regions in which the products will be used.

KEY FEATURES

- Cost-effective and long service life
- 314Ah LFP cell leads to high energy density
- Active balancing BMS on pack and rack level, releases more energy and extends the life of the system
- Liquid cooling technology with cell temperatures being controlled within the optimal operating range
- Battery pack IP65 seal grade, avoid dust, moisture, and water condensation
- Multi-stage thermal spread technology, effectively prevents battery heat spread and improves safety
- Multi-level fire detection, monitor early thermal runaway of cells
- All internal components including battery packs assembled in factory, reducing on-site installation costs

545 Speedvale Avenue West, Guelph, Ontario, N1K 1E6348, www.csestorage.com, support@csestorage.com

CIRCUIT DIAGRAM



SYSTEM PARAMETER

	CSI-SolBank-S-3328-2h-NA	CSI-SolBank-S-3328-4h-NA
Battery Chemistry	Lithium Iron Phosphate (LFP)	
Pack Configuration	1P69S (69 Cells)	
Rack Configuration	1P414S (6 Packs)	
System Configuration	8P414S (8 Racks)	
DC Voltage (Nominal)	1324.8 V	
DC Voltage Range[1]	1159.2 V ~ 1490.4 V	
Rated DC Power[2]	1545 kW	780 kW
Usable Energy Capacity (FAT)[3]	3095 kWh	3130 kWh
Max. Short Circuit Current	75 kA	70 kA
Charging/Discharging Mode	0.5 P / 0.5 P	0.25 P / 0.25 P
Duration @Rated Power	2 hrs	4 hrs
DC Round Trip Efficiency (RTE)[4]	93%	94%
Aux Load (Standby/Peak)	1.25 kVA / 30 kVA	1.25 kVA / 20 kVA
Auxiliary Power Interface	AC480 V / 60 Hz, 3P5W	
Thermal Management System	Liquid cooling/heating for battery system, air cooling for electrical components and humidity control	
Control Backup	2-hrs UPS for control system including BMS, installed in the container	
Operating Temperature (Ambient)	-30 °C to 55 °C	
Relative Humidity	≤95% (non-condensing)	
Communication Interface	Ethernet, RS485, CAN	
Communication Protocol	Modbus TCP/IP, Modbus RTU, CAN 2.0	
Certifications	UL1973, UL9540, UL9540A, UN38.3/UN3536	
Design Standards/Codes	NFPA69, NFPA70, NFPA855, IEC62619	
Enclosure	20ft. high-cube container	
Dimensions (L*W*H)	6058*2438*2896 mm (238.50*95.98*114.02 in)	
Weight (Battery Included)	30,200 kg (66,580 lbs)	
Altitude	≤ 2000 m (derating between 2000 m and 4000 m)	
Enclosure Ingress Rating	IP55 / NEMA 3R	
Painting/Coating	RAL9003	
Seismic Parameter	Zone 4	
Noise Level	≤ 75 dB @1m distance	
Fire Detection and Alarm	Fire alarm panel, heat and smoke detection, alarm bell and strobe with 24 hours UPS backup	
Explosion Prevention	Combustible gas detection with active ventilation	
Fire Suppression	Optional aerosol-based suppression system, dry pipe suppression system	
Emergency Stop/Shut-off	Local and remote	

1. Unit is rated at 1159.2V~1490.4V for optimized product performance, maximum voltage range for battery system is 1055.7V~1490.4V
2. The rated operating power of a single unit subject to a maximum of 3 units connected in parallel
3. Usable Energy Capacity is measured at FAT, contact e-STORAGE for estimate at COD
4. RTE is measured with rated DC Power for full cycle at BOL, refer to the warranty document for complete procedure

DC/DC

DS 1.1

Combine Solar and Storage plants.
Get the maximum revenue from a PV inverter.
Clipping energy recovery.
Compatible with all battery technologies.
Modularity to fit every plant requirements.

DC/DC

REFERENCES		FD1200
DC INPUT & OUTPUT	DC Rated Power (kW) @ 30 °C	1200
	DC Rated Power (kW) @ 40 °C	1120
	DC Rated Power (kW) @ 50 °C	1040
	Max. DC Output Current (A) @ 30 °C	1200
	Max. DC Output Current (A) @ 40 °C	1120
	Max. DC Output Current (A) @ 50 °C	1040
	DC PV Voltage Range (Vdc) [1]	850 - 1500
	DC ESS Voltage Range (Vdc) [1]	850 - 1500
	Maximum DC PV Input Voltage (Vdc)	1500
	DC Voltage Ripple	< 3%
	Max. DC Short Circuit Current ESS (kA)	250 kA with a time constant of 3 ms
	Max. DC Short Circuit Current PV (kA)	14
	Battery Technology	Compatible with all battery technologies
EFFICIENCY	Efficiency (Max)	98.9% (preliminary)
CABINET	Dimensions [WxDxH] (ft)	3.94 x 5.90 x 7.56
	Dimensions [WxDxH] (m)	1.20 x 1.80 x 2.30
	Cooling	Forced air
	Enclosure Protection Degree	N EMA 3R / IP54
CONNECTIONS	Number of PV connections	4 negative / 4 positive
ENVIRONMENT	Operating Temperature Range [2]	-25°C to +60°C, >50°C / Active Power derating
	Relative Humidity	From 4% to 100% non-condensing
	Max. Altitude (above sea level)	4000 m (> 2000 m power derating)
CONTROL INTERFACE	Interfaces	Emergency stop pushbutton and indicator lights
	Communications Protocol	Modbus TCP
PROTECTIONS	Inverter side [3]	Motorized DC disconnect switch
	BESS side [4]	Motorized DC disconnect switch and ultra-fast fuses
CERTIFICATIONS	Safety	UL1741, IEC 62109

NOTES

[1] Consult Power Electronics for derating curves.
[2] Consult Power Electronics for temperatures below -25°C.
[3] In case of augmentation application, ultra-fast fuses are included on the inverter side.
[4] Battery short circuit disconnection must be done on the battery side.

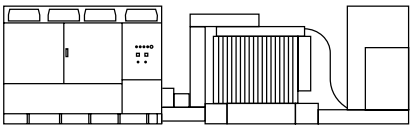
POWER ELECTRONICS

MV Skid Compact

DS 1.1

Turn-key solution
Easy and fast connection
Compact and versatile
Simplifies commissioning

MV Skid Compact



RATINGS	Power range @ 40 °C	1525 kVA - 4390 kVA
	Power range @ 50 °C	1415 kVA - 4075 kVA
MEDIUM VOLTAGE EQUIPMENT	MV voltage range	6.6 kV / 11 kV / 13.2 kV / 13.8 kV / 15 kV / 20 kV / 22 kV / 23 kV / 25 kV / 30 kV / 33 kV / 34.5 kV
	LV voltage range	480 V / 500 V / 530 V / 600 V / 615 V / 630 V/ 645 V / 660 V / 690 V
	Transformer cooling	ONAN
	Transformer vector group	Dy11
	Transformer protection	Protection relay for pressure, temperature (two levels) and gassing
		Monitoring of dielectric level decrease
		PT100 optional.
	Transformer index of protection	IP54
	Transformer losses	IEC standard or IEC Tier-2
	Oil retention tank	Galvanized steel. Integrated with hydrocarbon filter. Optional
	Switchgear configuration	Double feeder (2L)
	Switchgear protection	Circuit breaker (V)
	Switchgear short circuit rating [1]	16 kA 1 s (optionally 20 kA or 25 kA)
	Switchgear IAC [1]	A FLR 16 kA 1 s
CONNECTIONS	LV-MV connections	Close coupled solution (plug & play)
	LV protection	Motorized circuit breaker included in the inverter
	HV AC wiring	MV bridge between transformer and protection switchgear prewired
ENVIRONMENT	Ambient temperature range [2]	-25 °C... +50 °C (T > 50 °C power derating)
	Maximum altitude (above sea level) [1]	Up to 1000 m
	Relative humidity	4% to 95% non condensing
AUXILIARY SERVICES	User cabinet	Integrated in the inverter (by default). Optionally, LV cabinet in the skid.
	UPS system [1]	1 kVA/1 kW (12 minutes). Optional
OTHER EQUIPMENT	Safety mechanism	Interlocking system
	Fire suppression system	Transformer oil tank retention accessory. Optional.
STANDARDS	Compliance	IEC 62271-212, IEC 62271-200, IEC 60076, IEC 61439-1

NOTES

[1] Consult with Power Electronics for other options.
[2] For lower temperatures, consult with Power Electronics.

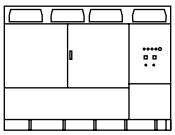
POWER ELECTRONICS

PCSK

DS 2.0

Modularity.
Easy maintenance.
Advanced grid support.
Compatible with all battery technologies.

Freemaq PCSK



COMMON FEATURES PCSK		FRAME 2	FRAME 3	FRAME 4
AC	Max. AC Output Current (A) @40°C	1837	2756	3674
	Operating Grid Frequency (Hz)	50/60Hz		
	Current Harmonic Distortion (THDi)	< 3% per IEEE519		
	Power Factor (cosine phi) [1]	0.5 leading ... 0.5 lagging		
	Reactive Power Compensation	Four quadrant operation		
DC	DC Voltage Ripple	< 3%		
	Max. DC Continuous Current (A)	2295	3443	4590
	Max. DC Short Circuit Current (kA)	250 kA with a time constant of 3ms		
	Battery Technology	All type of batteries (BMS required)		
CABINET	Dimensions [WxDxH] (ft)	9.8 x 6.5 x 7.2		
	Dimensions [WxDxH] (m)	3.0 x 2.0 x 2.2		
	Weight (lbs)	11465	11795	12125
	Weight (kg)	5200	5350	5500
	Type of Ventilation	Forced air cooling		
ENVIRONMENT	Degree of Protection	NEMA 3R / IP55		
	Operating Temperature Range [2]	From -25°C to +60°C, >50°C power derating		
	Operating Relative Humidity Range	From 4% to 100% non-condensing		
	Storage Temperature Range	From -15°C to +40°C		
	Max. Altitude (above sea level)	2000m / >2000m power derating (Max. 4000m)		
CONTROL INTERFACE	Communication Protocol	Modbus TCP		
	Power Plant Controller	Optional. Third party SCADA systems supported.		
	Keyed ON/OFF Switch	Standard		
PROTECTIONS	Ground Fault Protection	Insulation monitoring device		
	Humidity Control	Active heating		
	General AC Protection & Disconn.	Circuit breaker		
	General DC Protection & Disconn.	DC switch-disconnectors [3]		
	Overvoltage Protection	Type II for AC and Type I+II for DC		
CERTIFICATIONS & STANDARDS	Safety	UL 1741 / CSA 22.2 No.107.1-16 / IEC 62109-1 / IEC 62109-2 / IEC 62477-1		
	Installation	NEC 2020 / IEC		
	Utility Interconnect [4]	IEEE 1547:2018 / UL 1741 SA & SB/ IEC 62116:2014		

		690 V			660 V			645 V			630 V		
FRAME		**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**
REF.		**FP2195K**	**FP3290K**	**FP4390K**	**FP2101K**	**FP3151K**	**FP4200K**	**FP2055K**	**FP3080K**	**FP4105K**	**FP2005K**	**FP3005K**	**FP4010K**
AC	AC Output Power (kVA/kW) @40°C [5]	2195	3290	4390	2100	3150	4200	2055	3080	4105	2005	3005	4010
	AC Output Power (kVA/kW) @50°C [5]	2035	3055	4075	1950	2925	3900	1905	2855	3810	1860	2790	3720
	Operating Grid Voltage (VAC)	690V ±10%			660V ±10%			645V ±10%			630V ±10%		
DC	DC Voltage Range [6]	976V - 1500V			934V - 1500V			913V - 1500V			891V - 1500V		
	Maximum DC Voltage	1500V			1500V			1500V			1500V		
EFFICIENCY	Efficiency (Max) (η) [7]	98.94%			98.95%			98.81%			98.88%		
	Euroeta (η) [7]	98.51%			98.53%			98.41%			98.45%		

		615 V			600 V			530 V			500 V			480 V		
FRAME		**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**
REF.		**FP1955K**	**FP2935K**	**FP3915K**	**FP1910K**	**FP2865K**	**FP3820K**	**FP1685K**	**FP2530K**	**FP3370K**	**FP1590K**	**FP2385K**	**FP3180K**	**FP1525K**	**FP2290K**	**FP3055K**
AC		1955	2935	3915	1910	2865	3820	1685	2530	3370	1590	2385	3180	1525	2290	3055
		1815	2725	3635	1775	2660	3545	1565	2350	3130	1475	2215	2955	1415	2125	2840
		615V ±10%			600V ±10%			530V ±10%			500V ±10%			480V ±10%		
DC		870V - 1500V			849V - 1500V			750V - 1300V			708V - 1250V			679V - 1200V		
		1500 V			1500V			1300V			1250V			1200V		
EFFICIENCY		98.77%			98.78%			98.78% (preliminary)			98.78% (preliminary)			98.78% (preliminary)		
		98.37%			98.35%			98.35% (preliminary)			98.35% (preliminary)			98.35% (preliminary)		

NOTES

[1] Consult P-Q charts available: Q(kVAr)=√(S(kVA)2-P(kW)2).
[2] Optional available for temperatures down to -35°C.
[3] Battery short circuit disconnection has to be done on the battery side.
[4] Consult Power Electronics for other applicable standards/grid codes.
[5] Values at 1.00·Vac nom and cosφ=1. Consult Power Electronics for derating curves. The maximum AC output power must be limited to meet the P-Q capability requirement at the inverter level of some grid codes.
[6] Consult Power Electronics for derating curves. In the event of overvoltage in the grid, the minimum DC voltage will vary proportionally with the AC voltage.
[7] Consult Power Electronics for Frame 2 and Frame 3 efficiencies.

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