Mallard Pass
Solar Farm

Mallard Pass Solar Farm

Summary of Applicant's Oral Submissions at ISH4 & Appendices

Deadline 7 (10th October 2023)

EN010127
EN010127/APP/9.44
Revision 0

Planning Act 2008

Infrastructure Planning
(Examination Procedure) Rules 2010

Mallard Pass Solar Farm

Development Consent Order 202[x]

9.44 - Summary of Applicant's Oral Submissions at ISH4 & Appendices – Appendices A - C

Regulation Reference:	N/A
Planning Inspectorate Scheme Reference	EN010127
Application Document Reference	EN010127/APP/9.44
Author	Mallard Pass Project Team

Version	Date	Status of Version
Rev 00	10 October 2023	Deadline 7 Version

Table of Contents

Summary of Applicants Oral Submissions at ISH4

1.0 INTRODUCTION

1.1 This note summarises the oral submissions made by Mallard Pass Solar Farm Ltd (the "**Applicant**") at Issue Specific Hearing 4 ("**ISH4**") held on 26 and 27 September 2023 in relation to the Applicant's application for development consent for the Mallard Pass Solar Farm Project (the "**Proposed Development**").

1.2 Where the Examining Authority (the "**ExA**") requested further information from the Applicant on specified matters, or the Applicant undertook to provide further information during the course of ISH4, that further information is either set out in this document or provided as part of the Applicant's Deadline 7 submissions.

1.3 This note does not purport to summarise the oral submissions of other parties, and summaries of submissions made by other parties are only included where necessary to give context to the Applicant's submissions, or where the Applicant agreed with the submission(s) made and so made no further submissions (this is noted within the document where relevant).

1.4 The structure of this note follows the order of the items listed in the detailed agenda published by the ExA on 19 September 2023 (the "**Agenda**"). Numbered agenda items referred to are references to the numbered items in the Agenda. The Applicant's substantive oral submissions commenced at Item 3 of the Agenda. Therefore, this note does not address Items 1 and 2 on the Agenda as these were procedural and administrative in nature.

2.0 WRITTEN SUMMARY OF THE APPLICANT'S ORAL SUBMISSIONS AT ISH4

Agenda Item	Applicant's Response
3. Statements of Common Ground	
a) Summary of the latest position regarding the preparation of Statements of Common Ground	Mr Matt Fox, on behalf of the Applicant, provided an overview of the status of the various Statements of Common Ground ("**SoCGs**") at the time of the Hearing: • Rutland County Council ("**RCC**") – the Applicant received a revised version of the SoCG from RCC on 25 September 2023, which the Applicant is considering. The parties are aiming to produce an updated SoCG for submission at Deadline 7. • South Kesteven District Council ("**SKDC**") and Lincolnshire County Council ("**LCC**") – the latest versions of these SoCGs were submitted at Deadline 6. Various points remain under discussion. • Natural England – the SoCG is in final form, subject to final signatures. It is expected this will be submitted by Deadline 7. • Historic England – there are a couple of points still under discussion. The Applicant has been working to resolve these, since Deadline 4, but it has been difficult to do so as Historic England has not been actively involved in the examination. • Environment Agency ("**EA**") – once the final point relating to the protective provisions ("**PPs**") has been resolved, the SoCG with the EA can be finalised and signed. It is expected this will be submitted by Deadline 7. • Lincolnshire Wildlife Trust and Anglian Water – final versions of these SoCGs were submitted at Deadline 4. • Mallard Pass Action Group ("**MPAG**") – a revised version of the SoCG with MPAG was submitted at Deadline 6, with a further updated version to potentially be submitted at Deadline 7. The list of matters which the parties agree upon is nearly finalised. The parties just need to ensure that it reflects the most up to date position. In response to a point raised by Mrs Sue Holloway, on behalf of MPAG, regarding the inclusion of MPAG in the Statement of Commonality, Mr Fox explained that MPAG is not included in the 'traffic light' table of issues due to their SoCG adopting a different format. Mr Fox noted that the Statement of Commonality did previously include a paragraph specifically relating to MPAG and what the parties were seeking to do, and the ExA suggested that it would be worth adding reference to MPAG for completeness. **Post-hearing note (and dealing with Day 1 Action Point 1):** *The Applicant has updated the Statement of Commonality to restore the paragraph relating to MPAG. This updated version has been submitted at Deadline 7 alongside relevant updated SoCGs, as explained in that Statement of Commonality.*
4. Matters relating to the scope of the Proposed Development	
a) Applicant's proposed operational time limit of 60 years, including explanation of the reasons for the 60 year period and any implications	The ExA asked the Applicant to clarify their reasoning for introducing a 60 year time limit. Mr Fox explained that the introduction of a time limit provides certainty regarding the reversibility of the impacts of the Proposed Development. While the Applicant has consistently maintained that impacts are reversible, the time limit now sets a specific time at which that reversal will happen (i.e. a fixed decommissioning date). The Applicant has considered the points raised by interested parties and local authorities at the previous hearings, as well as in written representations and the ExA's Second Written Questions ("**SWQs**"), and responded

Agenda Item	Applicant's Response
of this for the assessment of the Proposed Development.	accordingly. The Applicant's responses to SWQs set out what the introduction of a 60 year limit means in terms of the assessments presented in the Environmental Statement ("**ES**"). In response to the ExA's query as to why the limit has been set at 60 years and not 40 years, Mr Fox confirmed it was chosen based on what was most appropriate in terms of the Applicant's commercial position, but also highlighted that there is no planning reason for it to be a shorter period of time, particularly in light of the continued delivery of renewable, low carbon electricity for that period. The need to meet Net Zero does not stop in 2050 – it is a continuing requirement past that date. Mr Fox noted that a 40 year time limit is something that the revised draft National Policy Statement for Renewable Energy Infrastructure ("**NPS EN-3**") states is "typical", but it is not prescribed. Paragraph 3.10.140 of draft NPS EN-3 expressly allows for applicants to seek consent for differing time periods. In terms of the generational impacts of the Proposed Development, such as landscape and visual or change in land use, a time limit of 60 years is no different from 40 years. The question remains whether those impacts are acceptable in planning terms – the overall impact of the Proposed Development is not altered by the introduction of a 60 year time limit. Mr Fox further explained that a time period of 40 years was only used for the ES so that a date could be provided for the purposes of quantification and modelling of impacts where some level of specific quantification was needed (e.g. for flood and carbon calculations), as the Applicant was not applying for a time limited consent at that stage of the development consent process. In response to the ExA's query regarding the what the Applicant meant by a 60 year time limit allowing for technical innovation in its response to SWQ 1.0.3, Mr Fox clarified that this predominantly related to panels and improvements in their operational lifespan. Solar panel technology is advancing rapidly, with significant enhancements in the last five years alone. **Post-hearing note (and dealing with Day 1 Action Point 2):** The ExA asked the Applicant to provide a detailed assessment, on a chapter by chapter basis, of the potential changes (if any) to the conclusions of the ES in light of the introduction of a 60 year time limit. The Applicant has undertaken this assessment and it is set out in a separate submission at Deadline 7 on this point. Mr Si Gillett, on behalf of the Applicant, outlined the additional carbon benefits associated with the Proposed Development modelled over a 60 year lifespan rather than 40 years (as was modelled in the ES). This is set out in more detail in that same separate submission, but in summary: • Mr Gillett noted that the Applicant's Responses to Interested Parties' Deadline 2 Submissions – Climate Change **[REP3-029]** set out a detailed description of the full lifecycle of carbon costs and benefits of the Proposed Development based on an operational life of 40 years. • That analysis showed that the Proposed Development would deliver a net benefit after 10.5 years of operation, taking into account degradation and other factors. After that point, the Proposed Development would be delivering a pure decarbonisation benefit, meaning that against a 40 year operational life there would be approximately 30 years of carbon reduction benefit.

Agenda Item	Applicant's Response
	• The modelling shows that at the end of a 40 year operational life, the electricity generation from the Site is not zero – it will still be approximately two-thirds of the initial generation. There may still therefore be intrinsic carbon reduction benefits available from the scheme, without incurring any additional carbon costs. This is also important because Climate Change does not stop at a point in time – the need for projects which deliver zero marginal carbon generation will continue ad infinitum, I.e maintaining a low-carbon, energy-rich world. A 60 year timeframe would enable the remaining benefit in the project to be captured in support of the enduring need to stay low carbon. • While there will come a time when panels may need to be replaced, for example when they reach the end of their operational life, the Applicant does not intend to undertake largescale replacement at one time. Mr Gillett presented an inherently conservative scenario where every single panel is replaced over the 60 year operational life. The worst case carbon cost that could be incurred would be in total double initial construction carbon cost, so would be paid back in approximately 20-22 years (accounting for degradation). This would leave between 38-40 years of pure carbon benefits over an operational period of 60 years. This is without taking into account the additional energy generation that may come from replaced panels as a result of replacing them, therefore reducing the effects of degradation. Mr Fox further noted that the assessment framework used in the ES in relation to climate change is inherently precautionary in terms of comparing carbon cost to carbon savings, and that the extent of carbon cost associated with solar development will only improve over time. In terms of panel replacement, Mr Fox highlighted the controls of HGV movements imposed in the outline Operational Environmental Management Plan ("**oOEMP**") **[REP6-008]**, being that there can be no more than five HGV movements per day associated with any planned maintenance activities, will ensure that the impact of any replacement works will be at extremely low levels. **Post-hearing note (and dealing with Day 1 Action Point 4):** Responding to a question from the ExA regarding the implications of a 60 year time limit in terms of annual power generation and carbon savings, the Applicant agreed to provide detailed information on this matter at Deadline 7. This is presented in the separate Deadline 7 submission on the impact of a 60 year limit referred to above. In response to various points raised by interested parties regarding panel replacement, and related questions from the ExA, Mr Fox explained that the ES assessed ad hoc replacement of panels over a period of time and that there are controls in place in the DCO, including the limit on five daily HGV movements under the oOEMP, that will ensure they kind of potential impacts that are causing concern will not arise. Mr Fox also confirmed that replacement of equipment other than panels (e.g. inverters) is embedded within the Applicant's figures, and that the controls put in place are for any kind of maintenance activity (I.e. broader than just panels). Mr Gillett further confirmed that the inherently conservative carbon cost assessment previously described, includes all electrical and non-electrical components such as poles and support structures. Mr Gillett also emphasised, responding to references made to the Gate Burton Energy Park by Mr Orvis, on behalf of MPAG, that the conservative assumptions of one project should not be construed as an indication of how much the solar industry or

Agenda Item	Applicant's Response
	individual solar projects believe they will contribute to decarbonisation because they are, as they have been described, conservative estimates and therefore are expected to be improved upon in operation. Addressing the point raised by Mrs Holloway, for MPAG, on the potential for policy, technology and other factors relevant to solar development and climate change more broadly to change over time, Mr Fox highlighted that the starting point for the Application was for a permanent consent, and the Secretary of State would have made to make a decision on that basis, now there is certainty as to when the operational life of the Proposed Development will end and impacts reversed. Mr Fox also noted that offshore wind DCOs do not have time limits imposed on them notwithstanding that it is known that their equipment will not last forever.
b) Matters relating to the connection agreement with National Grid, including questions arising from NGET's response to EXQ2 1.0.8 [REP5-034]	The ExA noted that, in their response to SWQs, National Grid Energy Transmission ("**NGET**") raised a number of points relating to the grid connection for the Proposed Development which suggested that there are a number of other matters to consider in addition to the grid connection agreement. The ExA asked if the Applicant could clarify any of these matters. Mr Fox emphasised that the NGET response simply set out a statement of fact, noting that, indeed, if any works were required outside of NGET's operational boundary in order to facilitate the grid connection, then it is a given that planning permission would be required. However, there has been no indication from NGET that this would be required in relation to the Proposed Development. NGET will be required to undertake further detailed studies once the Applicant receives development consent, as would be the case with any solar farm. In response to the ExA's query regarding the changes made to the Heckington Fen DCO application to fit with the grid connection agreement and whether there is a risk that a similar situation could arise in relation to the Proposed Development, Mr Fox stated that based on the Applicant's discussions with NGET there have been no reasons to suggest that the connection date cannot be met. NGET also have extensive permitted development rights. The ExA asked the Applicant to clarify whether NGET's responses relating to the capacity of the surrounding network and substations takes into account the connection agreement for the Proposed Development. Mr Fox explained that NGET has entered into a commercial agreement with the Applicant, and that NGET would not have done so if there was not sufficient capacity to accommodate the Proposed Development. Mr Fox emphasised that there is no risk that the Proposed Development will not be able to connect to the grid in 2028, as the grid connection agreement with NGET sets out the process for the two parties to work together to reach the agreed connection date, with penalties for NGET if they do not facilitate that date being met. The ExA asked the Applicant to engage with NGET to see if they could clarify their responses to SWQs submitted at Deadline 6. Dr Alan James, for CPRE (Cambridgeshire and Peterborough) queried whether the carbon lifecycle analysis for any work required to be undertaken by NGET to provide the grid connection had been taken into account in the Applicant's assessments.

Agenda Item	Applicant's Response
	Post-hearing note (and in response to Day 1 Action Point 4): *The Applicant confirms that it considers that the carbon cost of the connection to the substation and replacement of fencing is captured by the construction emissions figure utilised by the Applicant.* *The Applicant has not had a response from NGET on the questions raised by the ExA in terms of its response to SWQ 1.0.8, but has been able to consider this matter further in* ***Appendix B*** *to this Summary.* Responding to a question from Mrs Holloway, for MPAG, as to whether it was possible to have a grid connection agreement without actually having a grid connection, as is the case in Fosse Green Energy and Springwell Solar Farm, Mr Fox noted that the reason for the lack of grid connection for those two projects is that there is not an existing substation to which they can connect. Mr Gillett further clarified that construction of such a substation will be provided for as part of the grid connection agreements for those projects and therefore feeds into the timeframes committed to by National Grid for connection for those projects.
5. Water and Flood Risk	
a) Implications of the proposed 60 year operational time limit for the Flood Risk Assessment	The ExA noted that the 60 year time limit will take the Proposed Development into the 2080s epoch, where there will be a 28% uplift in peak flows (as opposed to the 20% uplift considered in the original assessment), and that the OEMP has been updated to allow for a reassessment to be carried out in the future, if necessary, to provide for this uplift, and queried why the Applicant has not provided some form of assessment at this stage. In response, Mr Liam Nevins, on behalf of the Applicant, explained that with a 60 year operational period the Proposed Development will only be operating for a small part of the 2080s. it is not known at this stage what climate change allowances will mean in the future, and that it is more appropriate to include wording in the oOEMP that allows for assessment to be undertaken at the relevant time to ensure that the modelling on which such an assessment would be based is as accurate as possible. Mr Fox noted that a similar issue arose in the context of the Drax Bioenergy with Carbon Capture Storage Project, and that in that case (acknowledging the differences between projects), the EA accepted wording that is essentially the same as is being proposed here that would allow for a reassessment to be undertaken at the time when the relevant inputs and allowances were more certain. If this future modelling shows that there is a problem with the mitigation measures already provided in terms of their ability to deal with the effects of climate change on flood levels, then the Applicant (or undertaker, as the case may be) will be required to provide further mitigation to address the issue under the DCO. **Post-hearing note (and in response to Day 1 Action Point 5):** *Mr Nevins noted that while EA modelling outputs do not provide for a 28% allowance (they only provide for 20%), the Applicant could potentially use the 1 in 200 year return period as a proxy to inform an indicative assessment. The Applicant has undertaken this further work, and the outcomes are set out in the Applicant's separate Deadline 7 submission on the 60 year time limit.* **Post-hearing note (and in response to Day 1 Action Point 6)** *At the time of ISH4, the EA had not reviewed the updated oOEMP wording in relation to post-40 years flood modelling. The Applicant has raised this matter with the EA and following their*

Agenda Item	Applicant's Response
	comments has amended the DCO at Deadline 7 to provide a new Requirement dealing with this issue (and therefore has taken the wording out of the OOEMP) as the EA indicated that it preferred for the matter to be dealt with in the DCO. Discussions indicate with the EA indicate that this Requirement (the wording of which is understood to be agreeable as it a slight adaptation of the wording provided by the EA) is likely not to be needed once the EA has been able to consider the modelling results provided in the Statement on 60 Years also submitted at Deadline 7. This will be confirmed with the EA following Deadline 7.
b) Consideration of the sequential test for flood risk and the extent to which it has been applied to site selection.	The ExA asked whether the Applicant would like to comment on the EA's submission that the area of search for the sequential assessment was not precisely defined. Mr Fox stated that the Applicant's site selection process was defined by reference to the grid connection statement. Ms Sarah Price, on behalf of the Applicant, went on to explain that the Applicant looked for suitable land and willing landowners surrounding the grid connection point, as there are benefits in keeping development as close to the substation as possible provided suitable land can be found. Minimising the length of the required grid connection limits environmental disruption and reduces the number of landowners with which the Applicant needs to negotiate. As for the application of the sequential test to the site selection process, Ms Price noted that, as set out in Appendix F to the Applicant's Responses to ExA's First Written Questions **[REP2-038]** various environmental topics that were considered when reviewing land around Ryhall substation including hydrology and flood risk. There are some parcels within the Order limits that fall within Flood Zone 2 but these are very small and the vast majority of the Site is within Flood Zone 1. Furthermore, given the location of Ryhall Substation, it is not possible to connect to it without some part of the development being within Zone 2. As a whole, the Order limits fall within a preferential area for the location of development in terms of flood risk, and the small parcels within Flood Zone 2 comply with the exception test as they are delivering essential infrastructure. Responding to the ExA's request for the Applicant to clarify what the level of flood risk is on alternative sites in comparison to the Order limits, Ms Price referred the ExA to the Applicant's previous responses on this issue. In terms of the alternatives considered by the Applicant, these are not 'true' alternatives, as they are not sites that meet the policy requirements of NPS EN-3 in terms of delivering the same renewable energy infrastructure within the same time period, particularly in light of the ability to connect to Ryhall Substation. In terms of flood risk specifically, the Order limits are almost entirely within Flood Zone 1. Theoretically, the Applicant could remove some panels from the small areas within Flood Zone 2 but this is not considered necessary to satisfy the sequential test or for any other environmental or planning reason. Locating solar infrastructure within those parcels would not increase flood risk, but it would reduce the amount of electricity generated by the Proposed Development. In response to concerns raised by Mrs Holloway, for MPAG, regarding the potential for increased flood risk outside the Order limits, Mr Fox highlighted that, in policy terms, the Proposed Development cannot cause increased flood risk elsewhere and that the Flood Risk Assessment ("**FRA**") **[APP-086]** concludes that this will not occur, and the EA has accepted that conclusion.
c) Consideration of surface water run-off and drainage during the construction	Referring to Table 3-7 in the oOEMP and the requirement for regular inspection of drainage systems, the ExA queried what would happen during an extreme weather event and how would this be managed, both within and beyond the Order limits. Mr Nevins explained that drainage measures would be expected to fail if required to operate beyond function. However, these

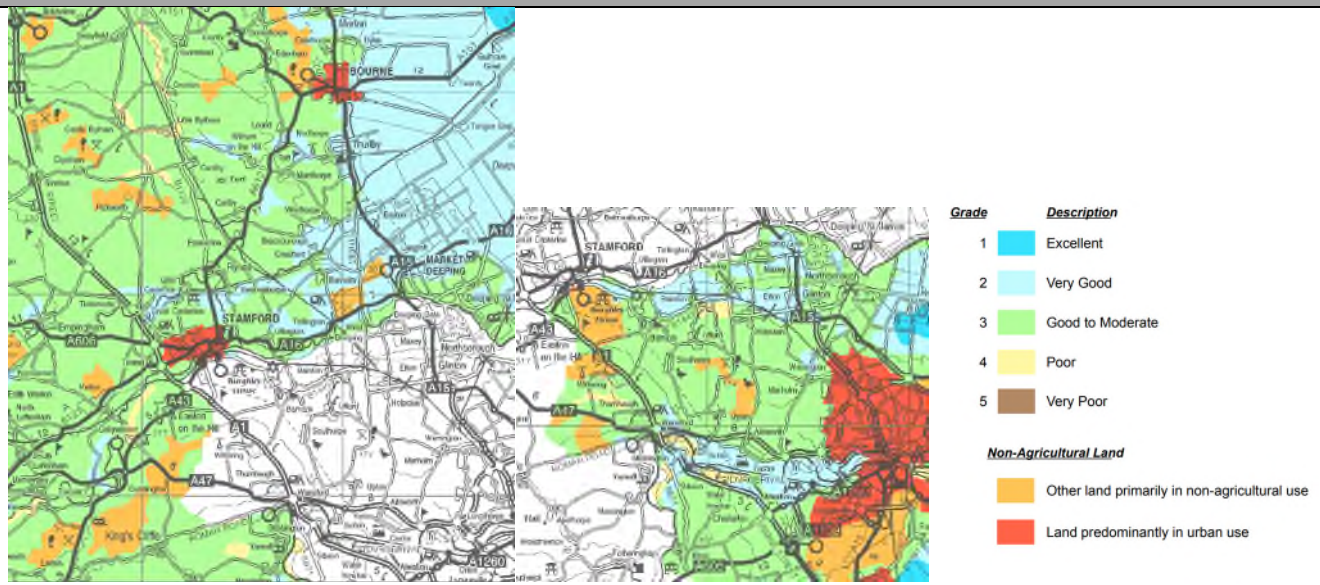
Agenda Item	Applicant's Response
operational and decommissioning phases, including the suitability modelling and proposed mitigation as identified in the Applicant's updated outline Surface Water Drainage Strategy [REP5-053], outline Water Management Plan [REP5-072], outline Operational Environmental Management Plan [REP5-062] and outline Decommissioning Environmental Management Plan [REP5-064].	measures would function to a point to hold water back before becoming overwhelmed, thereby acting as a beneficial mechanism in terms of slowing water flow compared to what would happen downstream if the Proposed Development were not in place. The drainage measures will be designed to cope with a 1 in 100 year rain event. Mr Fox also highlighted that the Applicant is required to develop and implement and Emergency Response Plan in accordance with paragraph 3.12 of the oOEMP **[REP6-008]**. The Proposed Development has been designed to deal with 1 in 100 year flood events taking into account climate change, but if there was an extreme and unforeseeable weather event then other measures would be needed, and would be provided for through the Emergency response Plan. Responding to a query from the ExA regarding potential surface water issues, Mr Nevins stated that there will be a dedicated environmental manager responsible for monitoring the functionality of any drainage measures. If any issues were identified, remedial measures would be required to be undertaken quickly to resolve them. Mr Fox noted that these requirements are referenced in the outline Surface Water Drainage Strategy ("**oSWDS**") **[REP5-052]** and the specifics of what this monitoring and maintenance will look like will be provided for (and approved by the Lead Local Flood Authority) through the development and implementation of the detailed SWDS. In response to a request from Mr Johnson, on behalf of RCC, the Applicant agreed to update the oOEMP to require a review of the performance of drainage mitigation measures following an emergency event, to confirm how the measures performed and suggest adaptions or additional measures if required. **Post-hearing note (and in response to Day 1 Action Point 8):** *The Applicant has updated the oOEMP to provide this wording, and this will be submitted as part of the Applicant's Deadline 7 submissions.* In response to Mr Briton's assertion, on behalf of Greatford Parish Council, that maintenance of culverts and drains will only serve to deliver water more quickly to Greatford, Mr Nevins noted that it is good practice to maintain drainage measures to keep them unlocked and functioning correctly. There are also several measures included in the outline Water Management Plan ("**oWMP**") **[REP5-071]** which seek to slow down water, including check dams, swales and vegetation. Responding to various points raised by Mr Barker, on behalf of Greatford Parish Council, regarding the establishment of grassland, Mr Fox stated that the Applicant has committed to establishing grassland in both the outline Landscape and Ecology Management Plan ("**oLEMP**") and the outline Soil Management Plan ("**oSMP**") and this forms a core part of the Applicant's mitigation proposals. The updated oWMP submitted at Deadline 5 **[REP5-071]** to manage (through SuDS measures) areas where grassland has not fully established prior to the construction phase. Mr Fox also highlighted that the EA has not raised any concerns and has deemed the Applicant's approach acceptable. Mr Nevins went on to explain that the fully hard surface scenario (i.e. all panels located on the ground) suggested by Mr Barker is not realistic, as panels will be mounted. In terms of topography, Mr Nevins noted that 90% of the solar PV array areas have a slope of less than 2%, then 7.5% of the area is between 2-6%, and only the remaining 2.5% of the area has a slope above 6%.

Agenda Item	Applicant's Response
	The model used to demonstrate the effectiveness of the proposed mitigation measures took into account topography, roughness and rainfall. In terms of increasing roughness, regardless of where this occurs on site it acts to slow down water through increased friction. These measures are committed to be designed under the oWMP and are required to be approved by the Lead Local Flood Authority, prior to the construction phase. In response to a query from the ExA as to whether any more fine grained modelling could be applied to consider the effectiveness of measures in mitigating flood risk, Mr Nevins explained that the modelling is intended to demonstrate the effectiveness of establishing grassland and vegetation specifically, not other measures such as swales which are yet to be designed. The design of these measures will be up to the construction contractor in consultation with the LLFA, whose approval will be required. Responding to the ExA's question as to when and where grassland will be provided, Mr Fox referred to paragraph 4.7 of the oSMP **[REP6-016]**, which provides that advanced sowing of grass can be advantageous where it can be achieved, however in some circumstances this will not lead to the best outcome. This dovetails with the oWMP, which provides that where grassland is not able to be established for soil reasons, other measures will need to be included as part of the detailed WMP, which the Lead Local Flood Authority will be required to approve. The SMP, WMP and LEMP are all interconnected in this respect and need to be read together in order to understand the full suite of mitigation measures and how these will be provided and managed. **Post-hearing note:** *Further to this discussion at ISH4 and later discussions at ISH5, the Applicant has updated the draft DCO at Requirements 9 and 14 to make it clear that detailed WMPs need to be consistent with detailed SMPs and vice versa. The Applicant has also produced a separate Deadline 7 submission dealing with the concerns raised about the establishment of grassland.* The ExA noted a query from MPAG regarding the Applicant's position that the Proposed Development is unlikely to contribute to surface water runoff levels to the same extent as the baseline agricultural use. Mr Nevins explained that agricultural workings on land ultimately introduce compaction through machinery and movements, and the Applicant maintains the position that compaction and tilling associated with agricultural land use will cause periods where runoff will occur. While there is the possibility of small patches of bare earth occurring during construction (i.e. where grassland is unable to establish), measures will be required to be put in place to ameliorate the associated surface water runoff risk in accordance with the oSMP. Mr Fox added that any such areas, even if bare earth, will be highly unlikely to become compacted through construction due to the measures in place under the SMP. In response to the ExA's query as to whether detailed design decisions relating to the alignment of panels will take into account runoff implications, Mr Nevins noted that the Applicant's vector analysis of the topography shows that there is no particular direction in which any land parcel remains at a particular slope over a larger area, such the orientation of panels is not going to result in concentration of surface water flows in any particular direction. Therefore it is not necessary for detailed design to take

Agenda Item	Applicant's Response
	this into account. Mr Nevins went on to explain that where specific risks areas are identified onsite (e.g. areas of steeper slope) the oWMP commits to targeted mitigation measures will be put in place as part of detailed design to reduce flood risk.
d) Any other matters arising deemed relevant by the ExA.	There was no discussion on this Agenda item.
6. Archaeology	
a) Further ExA questions regarding the Applicant's archaeological evaluation. b) Archaeological mitigation, including consideration of the Applicant's Outline Written Scheme of Investigation submitted at D5 [REP5-075].	The ExA dealt with Agenda items 6 (a) and (b) together. Responding to the ExA's request for an update as to the status of discussions between the Applicant and local authorities regarding archaeological matters in light of the circulation of the outline Written Scheme of Investigation ("**WSI**"), Mr Fox confirmed that the position remains unchanged from that set out in the most recent SoCGs and the Applicant does not propose to update either Requirement 10 or the 'without prejudice' Requirement set out in its ISH2 Summary of Oral Case. Mr Fox explained that the latter enables the Secretary of State to determine if further baseline trenching is required to further develop the outline WSI, as opposed to trenching to inform detailed design pursuant to the outline WSI. Mr Rob Sutton, on behalf of the Applicant, provided an overview of the content of the outline WSI. Mr Sutton explained that the outline WSI sets out further works in relation to archaeological mitigation, setting out a suite of different options and identifying plans for further trial trenching where needed to support the detailed design process. This involves targeting those areas where archaeological impacts are most likely. The outline WSI also sets out a range of options to protect and mitigate impacts on buried archaeology prior to construction. After some discussion, Mr Fox clarified that the Outline WSI would be updated at Deadline to remove paragraph 3.7. **Post-hearing note (and in response to Day 2 Action Point 1):** *This has been done in the updated outline WSI submitted at Deadline 7.* Responding to a query from the ExA, Mr Rob Sutton confirmed the approach as set in the outline WSI regarding the involvement of the Coroner in matters associated with the discovery of human remains (where s/he is not involved) or Treasure (where s/he is involved) was correct. **Post-hearing note (and in response to Day 2 Action Point 2):** *Further directions and guidance on the matter of the approach taken to the discovery of human remains can be found within the APABE Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England (2017). In particular it is noted that this Guidance confirms that the Coroner or police do not need to be informed of the discovery of human remains if they are properly interred in a burial ground or over a 100 years old (the latter being the most likely scenario for the Proposed Development.*

Agenda Item	Applicant's Response
	Post-hearing note (and in response to Day 2 Action Point 3): *The Applicant has also updated the DCO at Deadline 7 to be clear that approval of all 'subsidiary' documents, such as site specific WSIs, will be subject to the process in Schedule 16 of the DCO.*
7. Land use and Soils	
a) Consideration of the extent of soil surveys.	Responding to local authorities' answers to the ExA's question regarding the policy basis for their position that the Applicant should undertake further soil surveys outside the Order limits, Mr Fox, on behalf of the Applicant, noted the SoS' decision in Longfield, which highlighted NPS EN-3 and emphasised that it is the NPS which sets the policy on development on BMV land. The policy position on solar development has shifted since the promulgation of Written Ministerial Statement (WMS) of 25 March 2015. Mr Fox went on to explain that the soil surveys undertaken outside of the Order limits for Longfield did not relate to site selection and were only carried out on the periphery of the Order limits. For Mallard Pass, impacts on best and most versatile ("**BMV**") land were considered in the Applicant's site selection process for the Proposed Development but this is just one of many factors to be considered. Ms Price, for the Applicant, highlighted that the key point when considering the use of BMV land is proportionality – this was acknowledged by all of the local authorities in their responses to the ExA's SWQs. In terms of Longfield, it is important to note that the development still had a significant proportion of BMV land within its Order limits, and in fact had more Grade 2 land within its boundary than the Proposed Development. It is for each scheme to form a balanced approach for the proportionate level of BMV compared to other issues and effects. The Applicant has undertaken a robust process of site selection, surveying the land that was identified as available for development. In order to carry out soil surveys on adjacent or surrounding land, the Applicant would be required to obtain access from the relevant landowners. The landscape in which the Order limits sit is caried in terms of BMV and non-BMV land and, as set out at the site selection stage, the Applicant focus on areas where there was a lower propensity for BMV land based on Defra's Agricultural Land Classification ("**ALC**") Map. In terms of the Longfield approach and differences compared to that adopted for the Proposed Development, Ms Price explained that, in the Longfield example, there was a single landowner with an extensive landholding. The developer looked at that available land and then reduced it based on environmental impacts, including BMV, which meant some areas of BMV land were able to be removed. However, the changes made to the Order limits were at a much earlier stage in the development process. Here, what is being suggested by the local authorities would involve going out further from the Order limits to land owned by different landholders, at a later stage of the process to see undertake further surveys to see if the soil quality was lower than some areas of the Order limits. Mr Fox added that, given the location of BMV land parcels on the Site, if the Applicant were to avoid those the Proposed Development would have to be more spread out, with a longer cable, and therefore more land would be required. Sarah Price for the Applicant summarised the approach taken by Longfield Solar Farm. The approach taken by Longfield Solar Farm to site selection is explained in Chapter 3, Volume 1 of the Longfield ES, Alternatives and Design Evolution. The chapter explains that the Applicant initially identified an area of search of 5km from the point of connection and then sought to identify

Agenda Item	Applicant's Response
	contiguous potentially developable areas of around or greater than 300ha (paragraph 3.3.7). The land parcels where then reviewed to avoid or minimise significant environmental and social effects with regard to various factors including ecology, heritage, landscape designations, proximity to dwellings, land designated for other uses, areas of high flood risk, Green Belt and Best and Most Versatile (BMV) agricultural land, in particular Grade 1 has been avoided. Following this high-level appraisal, discrete areas of land were identified based on a desk-based assessment of topography, field shape and pattern, landowners, environmental considerations, residential amenity, Public Rights of Way and access (paragraph 3.3.9). This desk-based appraisal then identified the Longfield site and, as a willing landowner was identified with ample capacity, the site was taken forward (paragraph 3.3.10). Upon identifying the site, several stages of design evolution enabled the refinement of the site boundary, including a reduction from Scoping stage to Statutory Consultation from 582ha to 474ha. Paragraph 3.4.2 explains that the surveys undertaken that influenced this reduction included Agricultural Land Classification (ALC). This included the removal of some areas of Grade 2 and 3a land. It can be seen from the above that the Longfield Solar Farm site selection process was very similar to that undertaken by Mallard Pass Solar Farm. Agricultural land surveys were only undertaken on land within the Applicant's land holding, which were then used to refine the boundary, and further ALC surveys were not undertaken beyond this in land not available to the Applicant. In terms of Mallard Pass Solar Farm's approach, reference to the Applicants response to SWQ1.2.1 is useful. In particular, it notes that the Applicant would need to go a long way from the grid connection in order to potentially find significant areas of lower quality agricultural land (Grade 4 and below) as can be seen from examining the Defra predictive Agricultural Land Classification maps. Areas identified as Grade 3 from the desk-based assessment could only be identified as Grade 3a or 3b following detailed survey and as previously noted by the Applicant, this would not be proportionate within the meaning of NPS EN1. Extracts are provided below from the National England ALC maps. For an approximation of distance, Ryhall to Careby is roughly 5km, which is the same area of search applied for Longfield. Within this area, there is only a very small slither of Grade 4. An interrogation of the Natural England maps shows that the nearest large area of Grade 4 ALC land is to the west of Nottingham, approximately 65km away.

Agenda Item	Applicant's Response
	 In response to a query from the ExA regarding the extent of soil surveys undertaken within the Order limits, particularly relating to sampling density, Mr Fox noted that Natural England, as the relevant statutory body, have confirmed that they consider the Applicant's approach acceptable. Mr Tony Kernon, on behalf of the Applicant, explained that the standard ALC Methodology (Ministry of Agriculture, Fisheries and Food (MAFF), Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land (October 1988)) does not define a required sampling density. One has been developed over time as good practice, normally on a 100m basis, but this is not prescribed under the ALC Methodology. As such, adopting a different sampling methodology does not mean that the ALC is not appropriate or compliant. It is important to recognise the level of impact that might occur through sampling and then design a survey approach that is appropriate in those circumstances. The Applicant undertook a semi-detailed survey (which is the basis for many of the larger-site ALCs on the Government's Magic Map were carried out), which provided a pattern of land classification across the Site. Additional sampling was then undertaken in those areas that were identified as BMV or on the periphery. The Applicant has absolute confidence that an adequate sampling density has been provided for the Proposed Development. Mr Kernon further emphasised the need to bear in mind that the areas on which solar panels are to be installed will not be subject to any change in land quality. There will not be a permanent loss of land as a result of the Proposed Development – the soil quality will remain the same. Further sampling to provide a more detailed pattern of ALC across and/or around the Order limits is not going to change the level of impact. As the ALC across the Site is varied, with no large swathes of any particular

Agenda Item	Applicant's Response
	grade, practically the only outcome of removing any small areas of BMV land (assuming such further areas were identified) and find lower quality land elsewhere would be to produce a more scattered area of solar development across the countryside. Such changes are not likely to result in large blocks of BMV land. Natural England agrees with the Applicant on this point. The ExA queried how the Applicant's changes to the oSMP **[REP6-016]** at Deadline 6 in response to submissions from Natural England, to require stripped soil to be restored to its previous depth based on soil surveys, will be possible across the extent of the Order limits without greater sampling density. Mr Kernon confirmed that the changes only related to the limited areas where soil needs to be stripped, notably the tracks and bases for some of the fixed infrastructure. NE requested stripping of the full depth of topsoil, when a 15cm depth had previously been proposed. Mr Kernon confirmed that the Applicant has sufficient information from the soil surveys undertaken. The depth of topsoil does not vary significantly across the UK or the site – it is generally about 30cm. There is also usually an identifiable colour or texture difference between topsoil and subsoil. In accordance with the updated oSMP, where topsoil is removed (which will only be in small areas), it will be put back to the same depth, using the same soil. Responding to a supplementary question from the ExA regarding determination of topsoil depth (for removal and restoration), Mr Kernon explained that the soil surveys undertaken have informed the methodology provided for in the oSMP. The principles set out in the oSMP will be appropriately communicated to the relevant contractors and operators through pre-work briefings and/or training, and appropriately supervised, to ensure that they can recognise the difference between topsoil and subsoil. The colour and texture change between topsoil and subsoil will mean that operators will be able to identify and dig to the correct depth. Mr Fox also noted that Natural England are generally agreed as to the effectiveness of the measures proposed in the oSMP. The practicalities of implementing those measures is something the Applicant is required to do under the DCO. Ms Holloway, for MPAG, stated that MPAG have engaged a soil specialist to conduct their own on-site surveys within the Order limits. The Applicant had not yet had an opportunity to review this report so could not offer substantive comments at ISH4. Mr Fox highlighted the need to avoid getting into an "expert off" – the Applicant will respond to the extent that it can and where it would be appropriate to do so, but has already produced extensive and robust evidence to justify the conclusions of the ES with respect to soil quality. In circumstances where Natural England, as the relevant statutory body, is agreeing with the Applicant's approach there will need to be very strong reasons to disagree with that approach. In terms of the Applicant's response to the overview Ms Holloway provided at the Hearing, Mr Fox noted that the Applicant has already specifically address the question of the BMV quality of land that is set aside for mitigation and enhancement under the oLEMP as part of its response to the ExA's FWQ 7.0.9 [REP2-039]. Mr Fox emphasised again that the Proposed Development will not result in any loss of BMV soils – there will be a change in land use but the soil will remain as it us currently. He also noted that farming practices can negatively affect soil health. **Post-hearing note (and in response to Day 2 Action Point 5):** *The Applicant agreed to provide references and sources regarding positive impacts on soil health where land is allowed to develop into long-term grassland.*

Agenda Item	Applicant's Response
	Some known references are summarised below: (i) soil is an important natural capital resource. In the Environment Agency's "State of the Environment: Soil" report and Summary of January 2023, they note that UK soils currently store about 10 billion tonnes of carbon, equal to 80 years of annual greenhouse gas emissions. (ii) the report notes that soil biodiversity and the many biological processes and soil functions that it supports "are thought to be under threat". The report sets out that intensive agriculture has caused arable soils to lose about 40 to 60% of their organic carbon. (iii) the state of soil biology is poorly researched, but the report identifies that intensive agriculture reduces soil biodiversity. A recent study identified 42% of fields may be overworked, as evidenced by an absence or rarity of earthworms. It is noted that "tillage had a negative impact on earthworm populations, and organic matter management did not mitigate tillage impacts" (page 11). (iv) the Environment Agency "State of the Environment: soil" report notes that bare soils, reduced hedgerows and increased field sizes mean that, in England and Wales, an estimated 2.9 million tonnes of topsoil is lost to erosion every year. Erosion regularly exceeds the rate of formation of new soils (which is at about 1 tonne per hectare per year) on many soils, with 40% of arable soils at risk, especially lighter soils on hillslopes and peats in upland areas. "Significant decreases in erosion risk occurred when fields changed from winter cereal use to permanent grassland", the EA reported. Management practices in arable land can make a big difference, but the constant vegetation cover of grassland reduces erosion significantly. (v) the UK Food Security Report 2021 notes that, whilst grain is generally the most efficient form of production in terms of calories per hectare, it has a significant environmental impact "due to the lack of biodiversity in conventional grain fields, damage to soil through ploughing, environmental harms caused by fertilisers and pesticides, and the oil use embedded in fertilisers and field operations". (vi) organic matter in soil acts like a sponge and can hold up to 20 times its weight in water. Most arable soils have lost 40 to 60% of their organic carbon. The British Society of Soil Science record (Science Note: Soil Carbon, BSSS (2021)) the declining state of soil carbon (soil organic carbon and soil inorganic carbon), and note that the greatest and most rapid soil carbon gains can be achieved through land use change, eg converting arable land to grassland. Sustainable soil management practices are needed for all soils. (vii) the role of soil organic carbon in soils is complex, as described in the British Society of Soil Science Note "Soil Carbon" (2021). As described under the heading "Soil Carbon Functions" on page 4, "a soil with a greater SOC content has a more stable structure, is less prone to runoff and erosion, has greater water infiltration and retention, increased biological activity and improved nutrient supply compared to the same soils with a smaller SOC content. Even small increases in SOC can markedly influence and improve these properties". (viii) it is noted in that same report at the top of page 5 that "Significant long-term land use change (e.g. conversion of arable land to grassland or woodland) has by far the biggest impact on SOC, but is unrealistic on a large scale because of the continued need to meet food security challenges". There is general agreement that grassland is good for soil carbon, results in increased organic matter compared to arable land, reduces the risk of erosion, and soil biodiversity (including earthworms) will improve.

Agenda Item	Applicant's Response
	Environment Agency, Research and analysis: Summary of the state of the environment: soils, (26 January 2023). Environment Agency, State of the Environment: Soils (2019) Defra, United Kingdon Food Security Report 2021 (December 2021) British Society of Soil Science, Soil Science Note: Soil Carbon (2021) In response to a point raised by Dr James, on behalf of CPRE, regarding land contamination arising from the cleaning of solar panels, Mr Fox explained that the OSMP, oOEMP and oLEMP include controls and measures to manage the cleaning of panels to avoid land contamination issues. Addressing a further point by Dr James regarding food security, Mr Fox notes that there were farmers who asked the Applicant to locate the Proposed Development on their land as in some cases it would mean that their farms can continue to be sustainable economically [APP-090]. The Applicant refers the Examining Authority to an appeal decision by the Planning Inspectorate (APP/A2525/W/22/3295140 & APP/A2525/W/22/3295141, appended at **Appendix C**) in relation to a solar and BESS proposal on land which lies on the Lincolnshire and Norfolk border near Wisbech. The appeal site comprises 78 hectares of Grade 1 BMV land. The Inspector notes that almost all land nearby the site is either Grade 1 or 2 land and that while the proposal would take the land out of arable use for a temporary period (35 years), it would not represent a total loss of agricultural land as sheep would be grazed between the panels. The Inspector notes the prevalence of higher grade agricultural land across the area and concludes that finding an alternative site that could viably connect to the spare capacity at the nearby substation appears to have been addressed. The Inspector noted the LPAs concern about a cumulative loss locally of BMV but in response acknowledges the total amount of BMV in the LPA administrative areas is significant and that only a small part would be occupied by solar farms, even on a cumulative basis. In the Planning Balance the Inspector attaches significant weight to the scale and urgency of the need to deliver low carbon energy. The Inspector also ascribes moderate weight to the loss of BMV but recognises that the ability of the proposal to power approximately 10,000 homes and reduce C02 pollutants from the equivalent energy produced from fossil fuels by 8927 tonnes per year amounts to significant environmental and energy security benefits. The case is considered to be of relevance to the Applicant in terms of the acceptance that the principle of delivering low carbon/renewable energy where capacity already exists (particularly in light of the small amount of BMV land affected) is critical. The acceptance that the Appeal site is reflective of the general land quality, even though it is of BMV standard, is also considered relevant in terms of Mallard Pass Solar Farm as is the significant weight attributed to the generation of low carbon/renewable energy and the consequential environmental improvements identified.
b) Matters arising from responses to EXQ2 in relation to the management	In response to a point raised by LCC regarding how sheep grazing will be secured, Mr Fox clarified that grazing of sheep on fields within the Order limits is not proposed as a mitigation measure. Rather, it is a benefit of the Proposed Development that

Agenda Item	Applicant's Response
and monitoring of soil, including the suitability of measures identified in the updated outline Soil Management Plan [REP5-069], outline Landscape Environmental Management Plan [REP5-066] and outline Operational Environmental Management Plan [REP5-062].	could arise from the measures set out in the LEMP. The Applicant has provided evidence as to how such grazing could, in principle, work practically on fields with solar panels but as it is not mitigation the Applicant is not seeking to have secured. The ExA queried why the Applicant is not able to commit to establishing grassland 12 to 18 months before commencement of construction. Mr Fox explained that the extent and timing of grass seed sowing will depend on the particular area of the Site and what is appropriate. There will be mitigation measures in place to deal a situation where grassland is not sufficiently established by the time construction commences. A requirement to establish grassland 12 to 18 months in advance of construction would necessarily push out the pre-construction process, which would delay the time by which the Proposed Development is able to generate electricity. Mr Kernon further noted that the oSMP proposed measures to ensure that grass is sown in advance of construction where possible in the timescales for the Proposed Development. The benefit of sowing grassland early is really in management terms – it does not necessarily lead to more effective mitigation in terms of soil compaction. The critical factor in terms of mitigation is soil management in the context of local ground conditions, regardless of the land coverage. In addition, it is not the case that grassland could be sown across the extent of the Order limits at the same time. This will depend on the detailed programme schedule and which areas of the Order limits are going to be taken at which time. The timing of any grass sowing is going to be intrinsically linked to the time at which the land is taken for development. This will generally be between harvests. Mr Kernon stated that there needs to be flexibility to provide for an evolving situation. As Mr Fox emphasised, if the Applicant was required to establish grassland before any form of construction could commence, if there was a weather event that resulted in further grass needing to be sown and allowed to establish, such a requirement would effectively be imposing an unknowable hold point for which construction could actually begin. Responding to a point raised by Ms Carly Tinkler, on behalf of MPAG, regarding establishment of meadows and soil fertility, Mr John Baker, on behalf of the Applicant, noted that the Applicant has previously responded to a similar point in its written submissions, but in short (as set out in the oLEMP **[REP4-013]** and the Green Infrastructure Strategy Plan **[APP-173]**), the Applicant is not proposing to create an area of high diversity grassland. The Applicant is aware of the high nutrient risks and is not proposing any sort of soil inversion or removal due to the need to ensure that grassland areas can be reverted to arable land at decommissioning. Habitats will be designed to ensure that land can return to arable. The LEMP will include monitoring requirements to this effect. More diverse grassland is only proposed for the open areas to the west of the Site. **Post-hearing note (and in response to Day 2 Action Point 7):** *In response to the various matters raised in relation so the establishment of grassland and returning the land to agricultural use at ISH4, and the request from the ExA, the Applicant has produced a separate Deadline 7 submission on the establishment of grassland and its restoration to agriculture. This note has been submitted as part of the Applicant's Deadline 7 submissions.* The ExA asked the Applicant in the Hearing and in Action Point 8. to comment on how potential impacts to land resulting from temporary sealing have been considered, as per the IEMA Guidance.

Agenda Item	Applicant's Response
	Post-hearing note: *In response to that* (**and in response to Day 2 Action Point 8)** *the Applicant notes that the IEMA Guidance refers to the need to consider temporary uses where such uses would cause long-term loss or downgrading of land (the footnote to Table 3 of the IEMA Guide states* "*temporary developments can result in a permanent impact if resulting disturbance or land use change causes permanent damage to soils*"). *Further to the measures in the OSMP, and the nature of the Proposed Development, the Proposed Development is not an example of a scheme that would cause permanent damage to soils. The Applicant does not consider that the IEMA guidance does not require that temporary developments must be considered as causing permanent damage. It is also noted that the IEMA Guidance notes that "temporary development on agricultural land and soils (e.g., solar developments), which may be in operation more than 40 years, presents a risk of damage to soils not only during construction but also at decommissioning", indicating that the Guidance does not necessarily consider that there would be impacts in between construction and decommissioning.* Mr Fox further noted at the Hearing that the Applicant has made commitments in the oSMP in terms of land restoration. Even if such measures were considered to be insufficient, and the affected land needed to be restored to what it was previously, only a very small area of the Order limits will be subject to temporary sealing (approximately 0.9 ha). Any effect would therefore be non-significant.
8. Landscape and visual	
a) Implications of the proposed 60 year operational time limit.	The ExA stated that there did not need to be a detailed discussion on this Agenda item at ISH4 given the Applicant will be submitting a detailed response on the implications of a 60 year time limit to the assessments and conclusions presented in the ES.
b) Proposed fencing, including security considerations.	In response to a query from the ExA, Mr Ben Croot, on behalf of the Applicant, confirmed that the Design Guidance in the Design and Access Statement ("**DAS**") **[REP5-058]** was updated at Deadline 5, including in relation to fencing. On the issue of project parameters relating to fencing, Mr Fox emphasised that fencing requirements are secured through the design parameters and guidance. The Applicant has also consulted with police and local authorities in relation to security matters. The Applicant has confirmed with its insurance broker that the Proposed Development can be insured based on the security measures currently proposed and, if that needs to be changed in the future, that is at the Applicant's own risk. If the Applicant were required to change the design parameters relating to fencing in order to be able to discharge Requirement 8 of the draft DCO, Requirement 5 provides that, in order to change any details within documents or plans, the Applicant must satisfy the local authorities that any such changes will not result in any materially new or different environmental effects from those assessed in the ES. Mr Gareth Phillips, on behalf of the Applicant, explained that the type of deer fencing proposed for the Proposed Development is the same as many other non-NSIP (i.e. less than 50MW) solar projects throughout the UK. If there were to be an issue with the fencing, such that the local authorities did not approve its design as required under Requirement 5, there is an appeal mechanism provided under the dDCO that would ensure any issues could be resolved between the Applicant and the local authority and the Proposed Development progressed.

Agenda Item	Applicant's Response
	The ExA asked the Applicant to clarify the role of CCTV in providing for security. Mr Fox stated that CCTV for a solar farm, as for any premises where CCTV is used, acts as a deterrent to criminal activity and helps to catch anyone who commits a criminal act at the relevant location where CCTV is operating. Mr Phillips added that CCTV is used worldwide as a deterrent for criminal activity. Responding to a supplementary query from the ExA on CCTV, Mr Fox explained that the CCTV cameras installed for the Proposed Development would be monitored remotely. **Post-hearing note (and in response to Day 1 Action Point 4):** *The Applicant can confirm that the carbon cost of replacing fencing is accounted for in its figures – see further its separate Deadline 7 submission on the impact of a 60 year time limit.* **Post-hearing note (and in response to Day 2 Action Point 13):** *At the Hearing, the ExA asked if the Applicant could update the Design Parameters to make it clear that 3m palisade fencing is proposed for the substation only. The Applicant has amended the Parameters accordingly and submits a revised version as part of its Deadline 7 submissions.*
c) Proposed mitigation and enhancement measures.	In response to the ExA's query regarding the Applicant's position on MPAG's submission regarding some measures being double counted as mitigation and enhancement, Mr Croot noted that the Applicant's position is set out in the Applicant's Responses to Interested Parties' Deadline 2 Submissions - Landscape and Visual **[REP3-032]** and also in the Applicant's response to SWQ 8.0.5 **[REP5-015]**. The mitigation proposed aligns with the character area studies for the Order limits and surrounding area. There is a grey area in terms of what can be considered mitigation versus enhancement. It can be different for different topics, and can also be different in terms of timing. For example, planting, from a landscape and visual perspective it is mitigation but from a biodiversity/ecological perspective it is an enhancement. Then in terms of landscape character, when vegetation is matured (i.e. post-60 years) and remains in place, it transitions from mitigation (visual screening) to an enhancement that remains post-decommissioning.
d) Updated Design Guidance [REP5-058]	The ExA requested that the Applicant go through the various updates made to the Design Guidance in the Design and Access Statement **[REP5-058]** at Deadline 5. Mr Croot outlined the changes made (**shown now in response to Day 2 Action Point 11)** and these are provided below in track changes below as follows: ▪ PE3.4 – The 33Kv cable route will be designed to minimise temporary road closures as far as practicable possible. ▪ PL3.17 – Lighting of the Onsite substation will be in accordance with Health and Safety Requirements and there will be no permanent (continuous) lighting of the Onsite Substation for security purposes. ▪ PE.4.2 – Solar Stations and storage containers will be located at least 50m from PRoW, permissive paths and rural roads, and increased further where this doesn't unnecessarily extend cabling or result in technical constraints. ▪ PE.4.3 – At least a 250m offset of solar stations and storage containers from residential properties, and increased further where this doesn't unnecessarily extend cabling or result in technical constraints. ▪ PL3.23 – The Onsite Substation platform shall be cut into the landform, allowing for accessibility, engineering and electrical design considerations. ▪ PE4.8 – Access into the Solar PV Site will be secured via the installation of secure access gates. ▪ PE4.9 – Any existing agricultural points of access into the Solar PV Site which are not required for ongoing access purposes will be secured.

Agenda Item	Applicant's Response
	Responding to a query from Ms Holloway, for MPAG, regarding the function of the storage containers, Mr Fox explained that, as set out in Table 5-6 of the ES, the Applicant has assumed one container per 30MW of output and their role is to store electrical components and elements used for maintenance purposes.
e) Any further matters in relation to the Outline Landscape Environmental Management Plan [REP5-065]	There was no discussion on this Agenda item.
f) Any other matters arising deemed relevant by the ExA.	The ExA noted that the Accompanied Site Inspection ("**ASI**") provided a comprehensive look at the Site. The ExA will be going back to the Site in October for an unaccompanied and unannounced site visit, specifically to look at footpaths as well as distant views. If any parties have any particular points they consider it would be useful for the ExA to see that they have not already seen, the ExA requested that these be provided by Deadline 7. **Post-hearing note:** A full size hard copy of the baseline photoviewpoints and photomontages have been sent to ExA to assist in the October site visit.
9. Biodiversity and ecology	
a) Shadow Habitats Regulations Assessment in-combination matters arising from responses to EXQ2 3.1.3 and the Statement of Common Ground between the Applicant and Natural England [REP5-009].	There was no discussion on this Agenda item, as the ExA had a question for Natural England but they were not in attendance at ISH4.
b) Suitability of the Applicant's latest approach to Biodiversity Net Gain, including updates to Requirements 5 and 7 of the draft Development Consent Order [REP5-016] and the outline Landscape Environmental Management Plan [REP5-066].	In response to a question from the ExA regarding the degree of weight that can be attached to the percentages of BNG that will be achieved through the LEMP, Mr Fox emphasised that the certainty that the specified levels of BNG will be achieved is provided by Requirement 7, which requires the Applicant to achieve those levels. In terms of the wording relating to the BNG metric that is to be used to calculate those percentages, Mr Fox explained that the Applicant has not adopted the same wording as Longfield (i.e. to specify a particular metric to be used). There is going to be a new statutory metric in due course, so the Applicant has proposed wording that secures percentages of BNG that must be achieved through the Proposed Development while allowing for future change(s) to the metric that is to be used to calculate those figures, whilst still allowing for compliance with the OLEMP. Responding the claim by Dr Williams, on behalf of MPAG, that the biodiversity and enhancement measures proposed by the Applicant will be "churn" rather than gain, Mr Fox noted that the calculation of the measures being a net gain was carried out using Natural England's statutory metric, as is industry standard. Mr Baker further stated that, in order to be considered BNG, the

Agenda Item	Applicant's Response
	assumption in the metric is that the gain is secured, established and maintained, so not 'churned'. The relevant statutory and local authorities have reviewed the Applicant's calculations in this regard, including a peer review by Stantec **[REP3-039]**. Addressing Dr Williams' assertions around the ability to establish grassland, Mr Baker explained that the Applicant has set realistic aims in terms of grassland condition and type. The Applicant is not claiming to be establishing any sort of improved calcareous grassland, rather it is seeking to establish more neutral grasslands, as set out in the Green Infrastructure Strategy. Mr Baker went on to explain that the measures proposed by the Applicant will have positive impacts on the soil by allowing it to settle rather than being regularly ploughed for farming activities. As for Dr Williams' points regarding grass cutting and arisings rotting, Mr Baker highlighted that plants growing from soil and then dying (and rotting) in that same soil means there is overall no net change in soil nutrients. ***Post-hearing note:*** *Please also see the Applicant's separate Deadline 7 submission on the grassland establishment issue.* In response to the assertion by Ms Pauline Crampin, a local resident, that all small woodlands are to be removed as a result of the Proposed Development, Mr Baker clarified that none of the existing woodlands within the Order limits are being cut down – they are all being retained in the strongest possible terms. All hedgerows, with a few small exceptions, are also being retained. The Proposed Development will provide setbacks from these habitats, and none will be boxed in as the Applicant is proposing further planting to provide greater connectivity between the existing woodlands. Mr Fox further explained that the existing woodlands have been deliberately excluded from the Order limits in respond to requests from landowners during statutory consultation. Connectivity will be provided through additional planting within the Order limits, connecting up to the woodlands that are located on the edge of the Site.
c) Provisions for ecological monitoring, including matters arising from responses to EXQ" 3.0.5.	Responding to Dr Williams' concerns regarding the frequency of monitoring required under the oLEMP, Mr Fox stated that the Applicant's position is set out in its Deadline 6 submissions. Details of how ecological monitoring will be carried out will be included in the detailed LEMP(s). The commitment is to undertake monitoring every five years, as this is the standard across a range of schemes not limited to solar. Once the Proposed Development is operational, any impact on most species, if not all of them, would have already happened during construction rather than during operation. The Applicant maintains that this is an appropriate level. During the Hearing, Dr Williams raised the possibility of the Applicant to make monitoring data available publicly or for use in research programmes at universities. The Applicant has considered Dr Williams' point and will consider sharing habitat monitoring data with interested parties. Formal feedback reports will be available and will be in public domain as part of the reporting process to the LPA after each 5 year period. ***Post-hearing note (and in response to Day 2 Action Point 16):*** *The Applicant has updated section 6.2 at Deadline 7 to revise its commitments in respect of ecological monitoring.*
d) Highways measures to avoid harm to the Ryhall	The ExA asked the Applicant to clarify its position that Natural England's suggestion of further signage may cause more damage to the SSSI. Mr Fox explained that, if Holywell Road is as narrow as has been suggested, there would be no other place to safely

Agenda Item	Applicant's Response
Pasture and Little Warren Verges SSSI, including the updated outline Travel Plan [REP5-074].	locate additional traffic signs than in the SSSI verges. In accordance with the outline Travel Plan **[REP5-074]**, drivers will be instructed not to use Holywell Road. The Transport Assessment **[APP-074]** shows 105 LGV movements daily during construction, not all of which will be using the relevant route and the Applicant will be providing shuttle buses. The times at which works will be travelling to and from the Site is also off-peak, which means they will be less likely to need to "rat run" along alternative routes, and there is likely to be less traffic whilst they are travelling. ***Post-hearing note (and in response to Day 2 Action Point 17):*** *The Applicant has updated the oCTMP to include reference to signage or other remedial measures along Holywell Road in the event it becomes apparent that construction worker traffic is using Holywell Road, the scope of which will be discussed and agreed with RCC.*
10. Transportation and traffic	
a) Traffic regulation measures, including:	
i. The extent of temporary measures along Bourne Road, Essendine (proposed 30mph speed limit and temporary traffic signal control area);	In response to a query from the ExA, Mr Fox and Mr Ricci clarified that the proposed speed limit through Essendine referred to in the outline Construction Traffic Management Plan ("**CTMP**") should be 20 mph, and that this limit applies to all areas where temporary traffic measures are proposed. Addressing a related query from Mr Burfield, on behalf of Essendine Parish Council, Mr Fox confirmed that the 20 mph speed limit in Essendine will be in place for six weeks during cabling works. Mr Burfield raised a further point regarding the ability to ensure drivers adhere to temporary speed restrictions. Mr Fox explained that these restrictions will be accompanied by the installation of temporary traffic signals. The enforcement of controls in the DCO is essentially the same as controls imposed under a traffic regulation order by a local highway authority, but the Applicant (or undertaker) will not have the enforcement powers of a police officer or traffic control officer. The Applicant's power under the DCO is the ability to put the speed limit in place – a breach of the speed limit is not a breach of the DCO itself, with the power to enforce that limit remaining with police and the local highways authority. **Post-hearing note (and in response to Day 2 Action Point 18)**: *The Applicant has updated the Traffic Regulation Measures – Temporary measures plans to show the temporary speed limit as 20mph along the A6121 through Essendine. Upon reviewing the other temporary speed limits proposed across the Order limits, it is noted that the majority of these speed limits take place on roads which are unrestricted in speed and so a temporary speed limit of 20mph may not be appropriate in accordance with Traffic Signs Manual Part 8 (2009) guidance. On that basis, it is proposed to retain the other temporary speed limits (excluding the A6121) as 30mph.*
ii. Provision for access to Essendine Industrial Estate, including COMAH sites arising responses to EXQ2 11.0.5;	The ExA queried whether the Applicant considers there would be any value in updating the oCTMP to provide clarity that access to the Essendine Industrial Estate, including COMAH sites, will be maintained, and also asked how businesses within the Estate would be notified of the timing of any works that may disrupt their access. Mr Fox noted that paragraph 3.5.4 of the oCTMP **[REP6-016]** provides that traffic management measures will ensure access will be maintained to all properties including the Estate.

Agenda Item	Applicant's Response
	At the Hearing, the Applicant committed to consider whether the wording of the oCEMP can be updated to provide greater clarity and certainty in respect of liaison with businesses and responding to their needs. ***Post-hearing note (and in response to Day 2 Action Point 19*)**: *The Applicant has done through amendments to both the OCEMP and OCTMP at Deadline 7.* In response to a concern raised by Ms Holloway, on behalf of MPAG, regarding having more than one group for liaising with the local community, Mr Fox clarified that the commitment to the Traffic Management Working Group ("**TMWG**") has always been included in the oCTMP, whereas the Community Liaison Group is a new proposal. The TMWG is not limited to Essendine Village – it relates to the entirety of the extent and lifetime of the Proposed Development and has a very specific function relating to the management of traffic, working with the community and relevant local authorities. ***Post-hearing note (and in response to Day 2 Action Points 19 and 23*)**: *At the Hearing, the Applicant agreed to review the wording of the oCTMP and oCEMP to the extent that there is cross over between the roles and purpose of the TMWG and the CLG and, if required, update these plans to ensure there is sharing of information with all groups. This has been done through amends to the OCTMP and OCEMP in relation to the role of the Community Liaison Officer and sharing of information. The Applicant has also checked paragraph 2.3.1 of the oCTMP against the oCEMP and considers they are sufficient with the exception of one typo in the OCTMP which has been corrected.*
iii. Management of temporary closures.	Responding to the ExA's query as to whether the oCTMP should be updated to provide further comment or reassurance that any closures are temporary and will be removed as soon as possible to ensure minimum disruption, Mr Fox stated that the Applicant will not be updating the oCTMP along these lines as "minimum" is a qualitative judgment. The Applicant is unable to use its traffic management powers under the DCO without detailed CTMP being approved. The oCTMP sets out all traffic management measures for the Proposed Development, including timings, and it is not appropriate for the approval of the detailed CTMP to turn on what is considered "minimum" or not.
b) Consideration of construction traffic matters arising from submissions at Deadline 5, including:	
i. Potential issues raised by National Highways regarding construction traffic associated with the Proposed Development should the construction programme overlap with the A47 Wansford to Sutton scheme [REP5-035 & REP5-036];	The ExA queried whether Peterborough City Council ("**PCC**") should be added to the TMWG to ensure there was a mechanism for engagement should there be overlap between the Proposed Development and National Highways' A47 Wansford to Sutton scheme. Mr Fox stated that the Applicant will not go so far as to include PCC on the TMWG, but some additional wording could be added to paragraph 5.2.5 of the oCTMP to specifically provide for engagement with PCC in relation to diversion works impacting Peterborough. **Post-hearing note (and in response to Day 2 Action Point 19):** *The Applicant has updated the oCTMP to provide for engagement with PCC where liaison with the TMWG on committee development indicates a diversion route through Peterborough may be necessary to accommodate overlap with the A47 Wansford to Sutton scheme. This is submitted as part of the Applicant's Deadline 7 submissions.*

Agenda Item	Applicant's Response
	Following submissions by Parish Councils, at the hearing, the Applicant committed to consider whether parish councillors participating in the TMWG and/or CLG should be compensated for their time in attending and supporting these groups. **Post-hearing note (and in response to Day 2 Action Point 20):** A*s part of the side Agreement put to the local authorities discussed at ISH5, the Applicant has provided that if Parish Councils wish to be reimbursed for their costs in preparing for and attending CLG/TMWG meetings, it will pay those costs at £25 p/h, if reasonably incurred, and if invoices are provided via the local authorities.* Regarding Ms Holloway's query on the length of the proposed construction routes for HGVs, Mr Fox stated explained that these routes have been agreed with the local highways authorities, and if there were any breach of these routes by construction contractors the Applicant (or undertaker) would be required to remedy this in accordance with the DCO. These routes are committed to and secured through the dDCO – contractually, all drivers are required to comply with these routes and their supervisors or managers will be incentivised to ensure compliance. Mr Ricci further clarified that the assumption underlying the selected routes is that panels will be delivered to a nearby port in the UK. In the context of this wider journey from the ports along the Strategic Road Network, the construction routes are relatively short. The chosen routes represent the most efficient way for HGVs to get from the Strategic Road Network to the Site. Route 1 is the most direct route from the A1 to the Site. If drivers were required to also use Route 1 to return to the A1, this would create other environmental impacts. The Applicant therefore developed Route 3, to provide an alternative route to return to the Strategic Road Network from the Site.
ii. Suitability of updates to the outline Construction Traffic Management Plan [REP5-068] and outline Construction Environmental Management Plan [REP5-060] that seek to address matters, including; construction staff parking, the provision of wheel wash systems and the safe manoeuvrability of vehicles at construction compounds.	There was no discussion on this Agenda item. The ExA requested that the local authorities and interested parties provides any responses on this issue in writing at Deadline 7.
c) Consideration of the Applicant's updates to the outline Operational Environmental Management Plan [REP5-062] aimed at	In response to the ExA's query regarding the basis for the inclusion of a limit of five two-way daily movements for HGVs for maintenance activities during operation, Mr Claudio Ricci, on behalf of the Applicant, explained that IEMA Guidance sets a threshold of 10% increase in traffic movements as the level requiring assessment. The Applicant applied a conservative review of the vehicle movement data in the Transport Assessment and identified the route with the lowest number of daily movements during construction upon the number of vehicle movements that would represent a 10% increase could be based. Mr Fox noted

Agenda Item	Applicant's Response
preventing maintenance activities causing materially new or materially different environmental effects from those reported in the Environmental Statement and related reporting to the local authorities.	this figure came from Uffington Lane, where the lowest number of daily HGV movements during construction is 48. 10% of 48 is (approximately) 5 daily HGV movements. Mr Fox further explained that the ES assessed there would be no impact in terms of HGV movements during operation, but the Applicant was conscious that this did not provide any sort of quantification. The Applicant has therefore set this limit to demonstrate that the number of daily HGV movements will be so low that it would not amount to something requiring assessment under IEMA Guidance. Any maintenance replacement works will therefore have to be managed in this context. Addressing a point raised by Ms Julie Smith, on behalf of RCC, regarding the width of Public Rights of Way ("**PRoW**") and permissive path diversions, Mr Fox clarified that the minimum widths specified for the minimal number of diversions that will be required were set based on feedback from the local planning authorities received at Deadline 5. If the LPAs wish these widths to be greater, the Applicant would be grateful to understand from the LPAs what the appropriate width should be. In terms of the length of any temporary diversions, Mr Fox noted that this would be determined through the detailed management plan approval process, through which any concerns the LPAs may have can be addressed.
11. Socio-economics	
a) Matters arising from responses to EXQ2 regarding Public Rights of Way and Permissive Paths.	In the context of discussions on the management of impacts on PRoWs and permissive paths, Mr Fox noted that the Applicant updated the oOEMP at Deadline 5 to include text requiring the Applicant to demonstrate that noise levels do not exceed 50dB on PRoW and permissive paths, and also a requirement to monitor and keep logs of noise levels that can be made available to the public. In terms of visual impacts, the intention of the commitment to engage with the CLG was introduced to the oOEMP to address concerns raised by members of the local community during the course of the examination – the Applicant has not suggested that this measure alters its conclusions regarding what the proposed mitigation will achieve. Ultimately, the details of all mitigation provided through management plans will be approved by the LPAs.
b) Any other matters arising deemed relevant by the ExA.	There was no discussion on this Agenda item.
12. Noise	
a) Consideration of South Kesteven District Council's D5 representations regarding an acoustic validation assessment [REP5-025].	The Applicant confirmed that the updated oOEMP submitted at Deadline 6 **[REP6-009]** now includes wording requiring an acoustic validation assessment as sought by SKDC.
b) Any relevant noise matters in relation to the latest versions of the relevant Environmental Management Plans [REP5-059, REP5-061, REP5-063].	In response to the ExA's request for an update on the management of noise in the latest versions of relevant management plans, Mr Fox noted that wording has been added to Table 2-1 of the oCEMP **[REP6-006]** in response to various submissions and commitments made during the course of the examination. The Applicant has committed that no percussive piling can occur within 400m of residential properties on Saturdays, and during the week such works can only occur in two periods of four hours between 8am and 6pm. Further, there can be no HGV deliveries or works likely to create substantial levels of noise after 1pm on Saturdays, and the start time for construction works on Saturdays has been moved to 9am (from 8am).

Agenda Item	Applicant's Response
	The Applicant at [REP2-41] provided an update to the Planning Policy Tables to reflect the Project position relating to the draft National Policy Statements for Energy. The Applicant will, at Deadline 8, submit a full update to the Planning Policy Tables that reflect the updates that have been over the course of the Examination across all relevant topics. For the purposes of this submission and as discussed at the Hearing (**and in response to Day 2 Action Point 24)**, the Applicant considers it prudent to acknowledge the changes made in relation to noise, as set out in the updated oOEMP, the updated Requirement 16 and updated Design Guidance submitted at Deadline 6. The Applicant considers that these updates provide further assurance that the operational noise characteristics of the equipment will be considered in detail and certainty that any exceedances are properly investigated and addressed. The Applicant considers that the conclusions of its assessment have not changed, meaning that it has continued to avoid adverse impacts on health and quality of life from noise (and mitigated them), and importantly within the context of the flexibility in design sought and lack of detailed design, gone as far as is practically possible at this stage to ensure that impacts are minimised, noting in particular, the low level of noise level set. The Applicant considers this gives further assurances to the SoS in terms of the tests required to be met by reason of paragraph 5.12.17 of Draft NPS EN-1
13. Matters relating to living conditions	
a) Glint and glare effects	There was discussion at the Hearing as to NPS EN-3 paragraph 3.10.125 and whether anti-glare coating would be put in place on the solar panels. ***Post-hearing note (and in response to Day 2 Action Point 27):*** *the Applicant has updated ES Appendix 5.1: Proposed Development Parameters and the oOEMP to ensure this is secured.* The ExA asked the Applicant to provide further details on glint and glare impacts on Wood Farm Cottages. Mr Croot noted that there is the potential for a significant impact on the two properties at this address, and the Applicant has mitigated against this through planting. Mr Croot noted, in response to the ExA's query, that North Lodge Farm Bungalow (which notably does not have a first floor) has not been considered in the glint and glare assessment due to the extent of planting around the property. ***Post-hearing note:*** *The Applicant has considered this further and produced glint and glare modelling and interpretation results specifically for North Lodge Farm Bungalow given that this question has been asked by the ExA. This is provided at* ***Appendix A*** *to this Summary and concludes that no further mitigation is necessary; particularly given as the 'gaps' noted in the baseline position will partly be resolved through the Applicant's proposed strengthening of the vegetation in this location. The Solar PV array has been pulled back from the fields adjacent to the south of North Lodge Farm Bungalow (Field 24) to the existing hedgerow approximately 55m to the south which would be retained and allowed to grow out more fully. To the east of North Lodge Farm Bungalow (also Field 24) structure/hedgerow planting is proposed providing visual screening/filter to potential views eastward with the Solar PV array set approximately 320m to the east from the garden of the dwelling. In response to the concerns raised at the Hearing, more mature planting is now proposed within the oLEMP [updated for Deadline 7] in Field 24.*

Agenda Item	Applicant's Response
	In response to the ExA's query regarding consideration and assessment of impacts on ground floor rooms and not first floor rooms, Mr Fox stated that the assessment was undertaken in relation to ground floors due to the main living space for dwellings generally being located on that floor. This is the standard assumption used for all glint and glare assessments. Where effects were identified based on that assessment, these have been mitigated. ***Post-hearing note (and in response to Day 2 Action Point 30):*** *The Applicant can confirm that the glint and glare assessment considers and reports on results to both ground floor and first floor levels (and above if applicable) of private properties. However, mitigation has only been proposed where the assessment has shown it to be necessary on the ground floor. This is on the basis that the first floor is not considered to be the main living space for a dwelling (noting that the solar panels would not be causing glint and glare at night, when residents are in bedrooms, as there would not be sun).* *In addition, the Applicant notes the difference of potential effects between ground and first floor is commonly nominal. In relation to the dwelling at Barbers Hill House (Mrs Wooley's property), the glint and glare assessment concludes that the distance to the closest reflecting panel would be approximately 215m and that potential effects would only be experienced from the above ground floor. A moderate impact classification is concluded and no mitigation is recommended.* ***Post-hearing note (and in response to Day 2 Action Point 32):*** *In response to discussions at the Hearing, the Applicant can confirm that the oLEMP has been updated to provide more mature screening to Church Farm, Mrs Beamish's property.* ***Post-hearing note (and in response to Day 2 Action Points 28 and 33 (noting that having reviewed the Transcript, it is considered that Mrs Wooleys' point is that made at the ExA's AP33)):*** *The Applicant notes the concerns raised at the Hearing, but considers that it is a slippery slope to start doubting and creating 'what if' scenarios for one assessment amongst many in an ES, and does not think it appropriate to start down such a slope. The Applicant stands by the results of the assessments that it has put forward, noting in particular that glint and glare assessments are based on computer modelling of the effect of the sun's rays on solar equipment, produced by industry experts. Furthermore, the assessment was carried out on a worst-case basis of no anti-reflective coating being put in place, which is what the Applicant intends to do. The assessment is therefore precautionary in any event and the reported effects are therefore likely to improve.*
b) Effects upon occupiers of North Lodge Farm Bungalow and Wood Farm Cottages	The ExA queried what height planting would need to be in order to provide effective screening and mitigation for the Wood Farm cottages and at North Lodge Farm Bungalow. The Applicant can confirm that an approximate height of 3.3m (i.e. the maximum height of the solar PV panels would) broadly be sufficient to provide effective mitigation. Planting would be secured through the oLEMP. In terms of Wood Farm Cottages specifically, Mr Fox emphasised that these properties are owned by a landowner who offered their land for solar development, and the Proposed Development has been designed to ensure appropriate mitigation, setbacks and other measures are provided in relation to those properties. As such, there is no negative impact on living conditions. Mr Croot went on to explain that, in terms of mitigation, a square block of woodland is proposed to be planted to mitigate potential glint and glare effects on these properties. The panels are proposed to be installed to the north of the properties, across Huffington Lane,

Agenda Item	Applicant's Response
	are to be setback (approximately 100m) behind existing woodland and existing hedgerow. As for impacts on residential amenity, the Residential Visual Amenity Assessment **[APP-057]** concluded that there are no significant effects. No panels are proposed directly to the south of these dwellings whose views would remain unchanged. To the east, planting in the form of infilling of gaps where required and growing out of the existing hedgerow along Uffington Lane, along with the set back of panels from the road and new woodland planting in the form of a small native woodland copse directly opposite Wood Farm Cottages would further mitigate potential views. In light of the concerns expressed at the Hearing, more mature planting in is proposed within the oLEMP [updated for Deadline 7] in Fields 47 and 48 adjacent to Wood Farm Cottages. ***Post-hearing note (and in response to Day 2 Action Point 31)*** *It is the Applicant's understanding that at Wood Farm Cottages, the main living rooms are located on the ground floor of these properties with bedrooms on the first floor.* ***Post-hearing note (and in response to Day 2 Action Point 29):*** *The ExA queried how potential in combination have been considered in terms of impact on overall living conditions at North Farm Bungalow and Wood Farm Cottages. The ES has assessed potential visual and noise impacts arising on residential receptors within Chapter 6: Landscape and Visual* ***[APP-036]*** *and Chapter 10: Noise and Vibration* ***[APP-040].*** *In both cases, these topics have specifically considered impacts to those specific properties, and, where necessary, suggested mitigation to be put in place, as explained in Appendix 10.5* ***[REP2-014]*** *and the Residential Visual Amenity Assessment ('RVIA')* ***[APP-056].*** *Furthermore, Chapter 9: Highways and Access* ***[APP-039]*** *considered the impacts to Uffington Lane, which is the road utilised by the residents of both properties and has proposed mitigation measures through junction improvements, passing places and traffic management.* *In both the cases of noise and traffic, likely significant effects are not reported. In particular it is noted that the secured noise mitigation ensures that the noise levels at all residential properties would not exceed 35dB, which is quieter than quiet library sounds (and would be lower at night when the solar farm would not be operating).* *As explained in Chapter 16 of the ES* ***[APP-046]****, the Applicant has assessed the interaction of effects, and in so doing, considered non-significant effects. With mitigation in place, none were considered to arise at residential receptors, including at these properties. As such, the only effect of relevance at these properties is visual effects, for which the Applicant has mitigated, and provided setbacks, as explained at the Hearings and in the RVAA.*

Appendices

Appendix A Solar Photovoltaic Glint and Glare Study – Focus on North Lodge Farm Bungalow

PAGERPOWER
Urban & Renewables

Solar Photovoltaic Glint and Glare Study – Focus on North Lodge Farm Bungalow

LDA Design Consulting Ltd

Mallard Pass Solar Farm

October 2023

ADMINISTRATION PAGE

Job Reference:	10430
Author:	Michael Sutton
Telephone:	[redacted]
Email:	[redacted]@pagerpower.com

Reviewed By:	Hannah McNaul
Email:	[redacted]@pagerpower.com

Issue	Date	Detail of Changes
1	October 2023	Initial issue

Stour Valley Business Centre, Brundon Lane, Sudbury, CO10 7GB

T:+44 (0)1787 319001 E:info@pagerpower.com W: www.pagerpower.com

SOLAR PHOTOVOLTAIC GLINT AND GLARE STUDY

Report Purpose

Pager Power was retained to assess the possible effects of glint and glare from the proposed Mallard Pass Solar Farm, located at Essendine, Stamford, Lincolnshire. This report focuses on the potential for glint and glare effects upon the North Lodge Farm Bungalow, located along Essendine and to the southeast of the National Grid Rhyall Substation.

The analysis has been undertaken using the same methodology and assumptions as the original glint and glare assessment.

North Lodge Farm Bungalow

The location of the North Lodge Farm Bungalow[1] is shown in Figure 1 below.

Figure 1 *North Lodge Farm bungalow location*

Fixed South Facing Panels

Table 1 on the following page summarises the predicted impact significance and mitigation requirement for the fixed south facing panels. The modelling output and reflecting panels are presented in Appendix A.

[1] Lon: -0.444126°, Lat: 52.685928°.

Identified Screening (Desk-Based Review)	Impact Classification	Mitigating Factors	Mitigation Recommended?
Partial visibility of the reflecting panels cannot be ruled out through gaps in the existing vegetation	Moderate	Effects will mostly coincide with direct sunlight, which is a far more significant source of light The distance to the closest visible reflecting panel area is approx. 340m, reducing the significance of the impact	No

Table 1 *Impact significance and mitigation requirement – fixed south facing panels*

Single-Axis Tracker Panels

Table 2 below summarises the predicted impact significance and mitigation requirement for the single-axis tracker panels. The modelling output and reflecting panels are presented in Appendix A

Identified Screening (Desk-Based Review)	Impact Classification	Mitigating Factors	Mitigation Recommended?
Views of the reflecting panels in the fields to the south of the dwelling are predicted to be significantly obstructed by existing vegetation Partial visibility of the reflecting panels in the fields to the east cannot be ruled out through gaps in the existing vegetation	Moderate	Effects will all coincide with direct sunlight, which is a far more significant source of light The distance to the closest visible reflecting panel area is approx. 340m, reducing the significance of the impact	No

Table 2 *Impact significance and mitigation requirement – single-axis tracker panels*

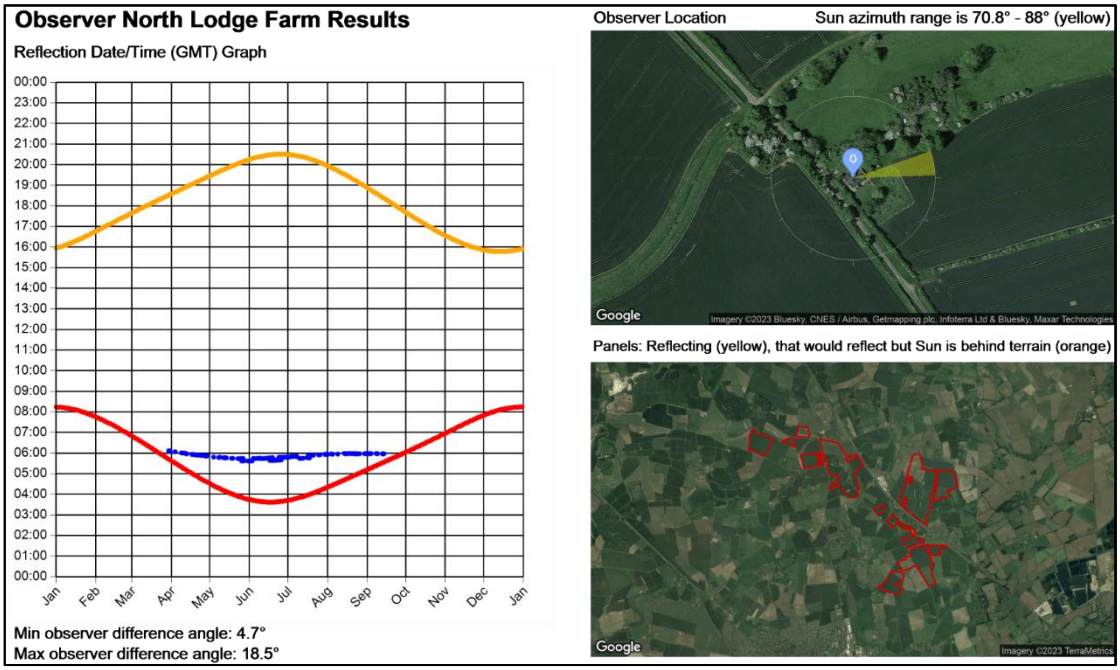
Overall Conclusion

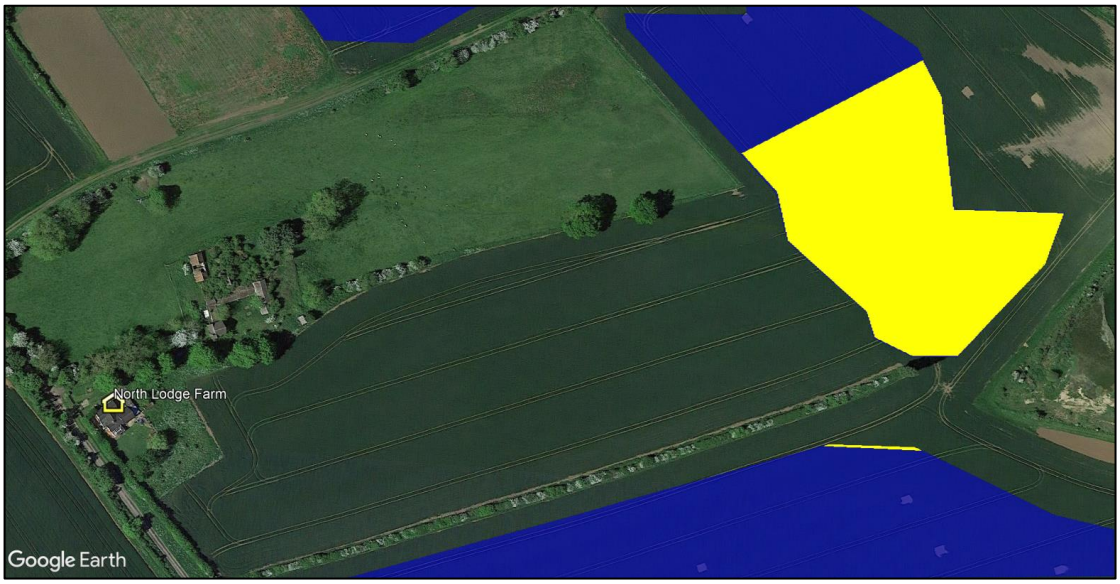
Solar reflections towards North Lodge Farm Bungalow from either panel mounting system occur for more than three months per year but less than 60 minutes per day. Mitigation is not recommended in either case because:

- The distance between the observer and the closest reflecting panel area is such that the proportion of an observer's field of vision that is taken up by the reflecting area is significantly reduced.
- Effects will coincide with direct sunlight, which is a far more significant source of light compared to a solar reflection.

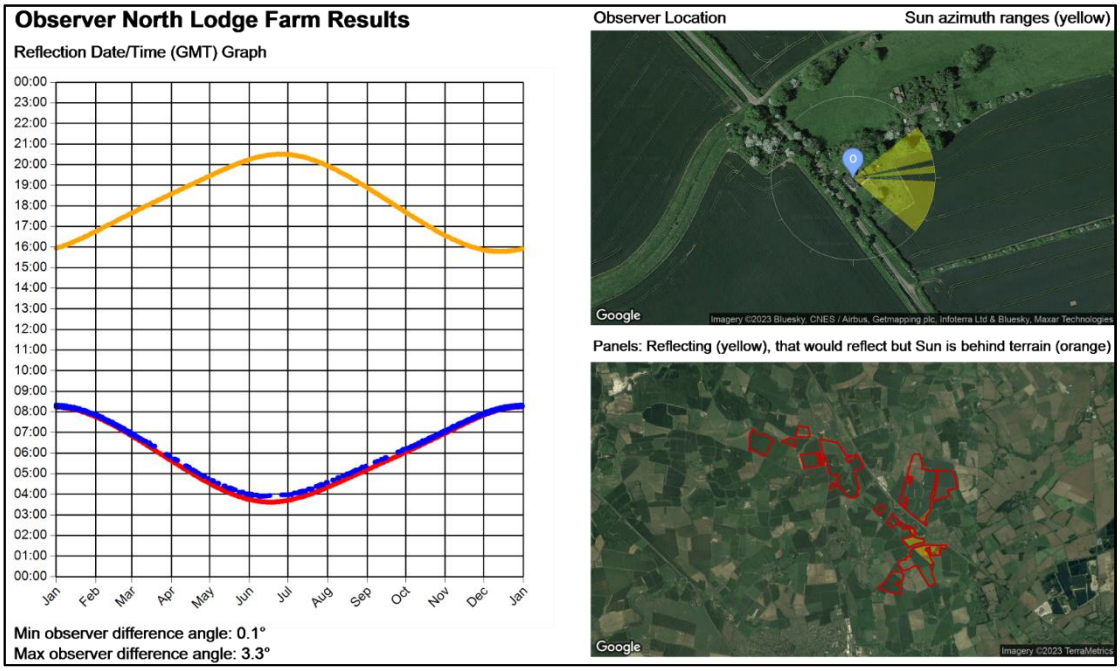
APPENDIX A – MODELLING OUTPUT AND REFLECTING PANELS

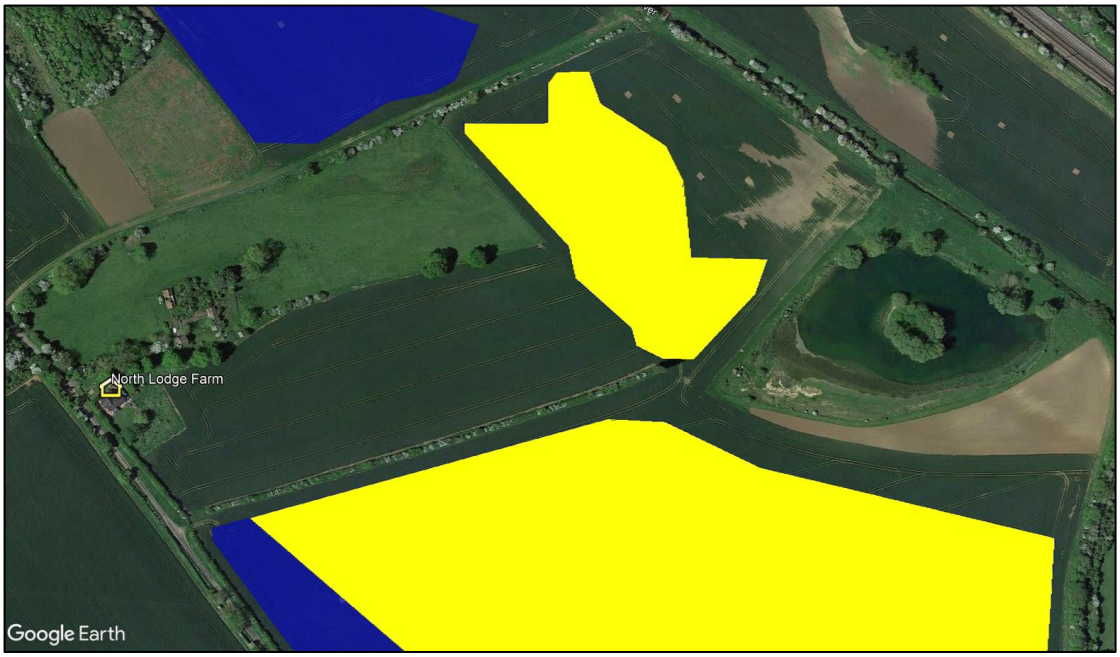
Fixed South Facing Panels





Single-Axis Tracker Panels





PAGERPOWER

Urban & Renewables

Pager Power Limited
Stour Valley Business Centre
Sudbury
Suffolk
CO10 7GB

Tel: +44 1787 319001 **Email:** info@pagerpower.com **Web:** www.pagerpower.com

Appendix B Applicant’s response to ExA’s SWQ 1.0.8

Applicant's response to ExA's SWQ 1.0.8 including National Grid's response [REP5-034]

a.1.1. This document provides the Applicant's response to ExA's SWQ 1.8.8 and provides additional information relating to NGET's response to that question.

a.1.2. NGET's response is in italics, the Applicant's comments are in bold. The ExA's question is in normal typeface and has 5 parts a) to e).

NGET's response to Q1.2.5 [PD-008] regarding the Applicant's proposed connection to the Ryhall Substation, states that NGET is required to undertake a system study and that further studies may be required.

a) Please can NGET provide an update on the progress made with the previously referenced system study.

a.1.3. **No MPSF Comment.**

b) The Applicant's Grid Connection Statement [APP-202] confirms that it has received a grid connection offer from National Grid Electricity System Operator Limited to connect the Proposed Development to the National Electricity Transmission System (to export 240MW AC). Notwithstanding, NGET's reply to Q1.2.5 can NGET and/or NGESO comment at this stage whether there are any likely impediments to the Applicant's proposed connection to the Ryhall Substation?

a.1.4. *We have initiated Front End Engineering Design (FEED) to propose detailed designs to accommodate the connection at the existing Ryhall substation and within its operational boundary. This work will identify any potential impediments to the Applicant's proposed connection to Ryhall substation – this FEED work is ongoing.*

a.1.5. MPSF have received no indication from NGET or NGESO that the current contractual connection date of 1 January 2028 will not be met.

a.1.6. As part of the Grid Connection Agreement process, NGET are required to set out those works which are required on the NETS, to facilitate the connection of a new asset. This includes engineering and power flow studies.

a.1.7. **On identifying works which need to be completed, NGET determine a timescale for that work to be completed and offer a connection agreement for that date.**

a.1.8. **As the project progresses, security payments are made (such that NGET are able to reclaim money from the developer if the developer subsequently decides not to proceed with their development).**

a.1.9. **Mallard Pass Solar Farm has received a Grid Connection offer for 240MW export capacity (i.e. onto the Grid) at Ryhall Substation from 1 Jan 2028.**

a.1.10. **NGET have indicated to MPSF that the Substation will require the 'installation of generator bay on Mesh Corner 2 at Ryhall 400kv Substation'.**

a.1.11. **In relation to these works, the Applicant makes the following observations. In response to ExA's FWQ 1.2.4, the Applicant wrote: *"Paragraph 8.48 of the Statement of Need [APP-202] explains that Ryhall substation was built as part of the East Coast Main Line (ECML) upgrade program. Ryhall substation is connected to the Cottam Power Station and to Wymondley Substation double-circuit 400kV overhead electricity transmission line (also shown in Figure 9.1). Power flows on the National Electricity Transmission in three phases, and two of the phases at Ryhall are used to feed power to the ECML. The third phase is available for the Proposed Development to use to connect to the NETS"***

a.1.12. **Image 1 below shows an aerial photo of the Ryhall substation from Google Maps.**

a.1.13. **The Applicant has superimposed a red line which it understands is the fenced boundary of the substation, the road access is from the north (top) of the image.**

a.1.14. **The green areas highlight the 2 transformers which are in situ and operating as per the earlier paragraph.**

a.1.15. **The orange area highlights the space for an as-yet uninstalled transformer, which the Applicant believes would connect MPSF to the third phase of the existing connection.**

a.1.16. **Image 2 below shows a photo taken by the Applicant from the road boundary (north).**

a.1.17. **The photo shows the fenced boundary, the two existing transformers, and to the left of the image, a space corresponding to where a third transformer would be placed.**

a.1.18. The Applicant therefore believes it to be the case that:

- **The substation has been designed to accommodate a third phase.**
- **The transformer required to make use of the third phase will "fit" in the space which has been designed to accommodate it; and**
- **Minor, if any, additional civil works are required to install the required equipment, other than the connection of a scheme-side cable to NGET's equipment.**

a.1.19. Therefore the Applicant believes it to be the case that there are no potential impediments to the Applicant's proposed connection to Ryhall Substation.

c) What further approvals/consents would be required from NGET and/or NGESO prior to the final implementation of the proposed grid connection?

a.1.20. *We cannot advise on this until the FEED work is complete. We are progressing with work on the basis of being able to accommodate the Applicant's connection within the existing operational boundary at Ryhall however this will be confirmed following FEED. If, following FEED, we cannot accommodate the connection within the existing operational boundary then further planning consent may be required.*

a.1.21. Further to the Applicant's position regarding response b) above, the Applicant does not believe that any further "approvals/consents would be required…prior to the final implementation of the proposed grid connection". Specifically:

- **The land area appears to be large enough for the third transformer not to encroach outside of the fenced area.**
- **As the area which appears to be set aside for the third transformer is entirely within the fenced area, it is also within NGET's operational area and therefore NGET would be able to use their Permitted Development Rights to install the third transformer (which allow for structures of up to 15m in height by virtue of the General Permitted Development Order 2015 (Class B(f)). This would allow for a third transformer as the existing transformers are 12.6m in height, as shown on the approved drawings for the existing substation.**
- **National Grid's system studies at the time of application would have validated that the local area of the NETS would have been able to accommodate power generated by the scheme.**
- **National Grid have confirmed in response to a) above that no further studies are required for Negative Phase Sequence.**

d) What would a reasonable timescale be for implementing the connection from the Proposed Development to the existing transformer bay available at Ryhall Substation?

a.1.22. *30th October 2027 – 1st January 2028 are the timeframes for the connection.*

a.1.23. The Applicant has a contract with National Grid for a 240MW export connection at the location from 1st January 2028. National Grid have at no time suggested that this connection date is in jeopardy.

e) Notwithstanding the grid connection offer, what is the available capacity at the Ryhall Substation?

a.1.24. *The network surrounding Ryhall has no further electrical capacity, further network reinforcements are required in the region to accommodate more capacity. Any physical capacity at Ryhall will be confirmed following the FEED work.*

a.1.25. The Applicant has signed a Grid Connection Agreement with National Grid and National Grid for their part have committed to delivering the contracted capacity on the contracted date.

a.1.26. Section 9.3 of the Statement of Need [APP-202] provides evidence which shows that the NETS has the capacity to transmit the energy generated by the Proposed Development from the point of connection.

Appendix C Solar Farm Appeal Decisions

The Planning Inspectorate

Appeal Decision

Site visit made on 1 February 2023

by Paul Thompson DipTRP MAUD MRTPI

an Inspector appointed by the Secretary of State

Decision date: 29 September 2023

Appeal A: APP/A2525/W/22/3295140
Gunthorpe Road Solar Farm, Land south of Gunthorpe Road, Walpole Marsh, Wisbech near PE14 7JH

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a failure to give notice within the prescribed period of a decision on an application for planning permission
- The appeal is made by Walpole Green Limited against South Holland District Council.
- The application Ref H-18-0741-21, is dated 8 July 2021.
- The development proposed is installation of a solar farm and battery storage facility with associated infrastructure.

Appeal B: APP/V2635/W/22/3295141
Gunthorpe Road Solar Farm, Land south of Gunthorpe Road, Walpole Marsh, Wisbech near PE14 7JH

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Walpole Green Limited against the decision of the Borough Council of King's Lynn and West Norfolk.
- The application Ref 21/01442/FM, dated 8 July 2021, was refused by notice dated 24 February 2022.
- The development proposed is installation of a solar farm and battery storage facility with associated infrastructure.

Decision

Appeal A

1. The appeal is allowed and planning permission is granted for installation of a solar farm and battery storage facility with associated infrastructure at Gunthorpe Road Solar Farm, Land south of Gunthorpe Road, Walpole Marsh, Wisbech near PE14 7JH in accordance with the terms of the application, Ref H-18-0741-21, dated 8 July 2021, subject to the attached schedule of conditions.

Appeal B

2. The appeal is allowed and planning permission is granted for installation of a solar farm and battery storage facility with associated infrastructure at Gunthorpe Road Solar Farm, Land south of Gunthorpe Road, Walpole Marsh, Wisbech near PE14 7JH in accordance with the terms of the application, Ref 21/01442/FM, dated 8 July 2021, subject to the attached schedule of conditions.

Procedural Matters

3. The appeal site straddles the administrative boundary between local authorities in two different counties, South Holland District Council (SHDC) in Lincolnshire; and the Borough Council of Kings Lynn and West Norfolk (KLWN), in Norfolk. While an application was submitted to each Council, on 21 January 2022 SHDC's Planning Chairman's Panel considered a report that raised no objections to the proposal. Its resolution was that decision-making authority should be delegated to KLWN, as the greater proportion of the site lies in its administrative area, and they issued a notice of non-determination on 25 February 2022. This stated no further action would be taken on that application. SHDC therefore failed to determine the application submitted to it and Appeal A is made on this basis. In its Statement of Case, SHDC suggest it does not wish to defend the appeal and has no objection to the proposal.

4. Although I have determined the appeals independently, given that authority was delegated to KLWN to determine the proposal, the main issues are the same and based on the reasons advanced by KLWN on its Decision Notice. I have had regard to all correspondence submitted by consultees and other interested parties to both Councils.

Main Issues

5. The main issue is the effect of the proposed development on the use of best and most versatile agricultural land.

Reasons

Planning Policy

6. The Decision Notice only refers to Policy DM20 of KLWN's Site Allocations and Development Management Policies Plan[1] (SADMPP). This states proposals for renewable energy and associated infrastructure will be assessed to determine whether or not the benefits they bring in terms of energy generated are outweighed by the impacts, either individually or cumulatively, upon a number of factors. It also states the Council will seek to resist proposals where there is significant loss of agricultural land; or where land in the best and most versatile grades of agricultural land [BMV] are proposed to be used. However, it goes on to clarify that development may be permitted where adverse impacts can be satisfactorily mitigated against and secured by planning condition or legal agreement. This mirrors the approach in paragraph 158 of the National Planning Policy Framework (the Framework).

7. Policy 31 of SHDC's South East Lincolnshire Local Plan 2011-36[2] (SELLP) states renewable energy facilities and associated infrastructure will be permitted provided, individually or cumulatively, there would not be significant harm to, amongst other things, agricultural land take.

8. The National Planning Practice Guidance[3] (NPPG) explains that where a proposal involves greenfield land, consideration should be given to whether the use of any agricultural land has been shown to be necessary, whether poorer quality land has been used in preference to higher quality land and to whether

[1] Adopted September 2016.
[2] Adopted March 2019.
[3] Paragraph: 013, Reference ID: 5-013-20150327, Revision date: 27 March 2015.

the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays. This approach is also reflected in the Framework, which states where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality[4]. Framework paragraph 174 requires the economic and other benefits of the best and most versatile land to be recognised in planning decisions. The NPPG also provides a link to the Written Ministerial Statement (WMS) of 25 March 2015 regarding unjustified use of agricultural land and expects any proposal for a solar farm involving BMV to be justified by the most compelling evidence.

9. The Framework clarifies in its glossary at Annex 2 that BMV equates to land falling within Grades 1, 2, and 3a of the Agricultural Land Classification. This land therefore requires greatest consideration when determining appeals.

Effect of the Proposal

10. The appellant's Site Selection fixed the study area for the proposal to 5km from a connection point of an existing electricity substation with additional capacity. The appeal site covers an area of 78ha, comprises two large agricultural fields south of Gunthorpe Road and west of the River Nene and land within nearby roads for cabling to export energy to the Grid at the Walpole Substation.

11. The concerns identified by KLWN are not with the site selection process but with what they describe as the loss of further Grade 1 land, having regard to other BMV land already occupied by or consented for use as solar farms in the locality. Moreover, the appellant's Agricultural Land Classification report[5] confirms the entirety of the land within the site is Grade 1 and all nearby land is either Grade 1 or Grade 2. This is common across the area where most agricultural land appears to lie within the BMV category. As a consequence, finding an alternative site that could viably connect to the spare capacity at the nearby substation would appear to have been addressed.

12. Notwithstanding this, the proposal would take land out of arable use, including for food production, for a temporary period of 35 years. This would not represent a total loss of agricultural land as sheep would be grazed between and under the arrays, a matter which could be secured through a management plan; and, following decommissioning, the land would be restored to agricultural use. The proposal would also allow for biodiversity and landscape enhancements around the panels. However, in accordance with the NPPG, these conditions need to be met alongside the use of BMV land. There would be a reduction in the productivity of this land and poorer quality land would not be used in preference to higher quality land, as required by the WMS, NPPG and the Framework, albeit it would appear that such poorer quality land is not viably available.

13. The total area of agricultural land within each of the Council's administrative areas is significant. However, the evidence before me shows the extent of land that would be occupied by solar farms, including the proposal, would represent a relatively small part of this, particularly regarding Grade 1 and 2 land available and that is utilised. While I note the Council's concerns that a tipping point of sorts has been reached with several solar farms located on BMV land,

[4] Footnote 58, within paragraph 175.
[5] 22 June 2021.

there are many competing demands for agricultural land, and some represent total loss. In the case of solar farms, there is a partial loss for a temporary period, and that loss must be balanced against the benefits of any scheme, which I address in the Planning Balance.

14. Nevertheless, I conclude that the loss of BMV throughout the lifetime of the proposed development has not been justified by the most compelling evidence, as required by the WMS, NPPG and the Framework. There would also be conflict with the aims of SADMPP Policy DM20 and SELLP Policy 31, as there would be temporary loss of 78 hectares of BMV land, which, particularly in combination with the other approved solar farms in the area, can be considered to represent significant agricultural land take from the proposal either individually or cumulatively.

Other Matters

Character and Appearance

15. The site is traversed by the Walpole St Peter Footpath 1 and there are others surrounding it, including at an elevated position alongside the River Nene. There are also numerous rural roads in the context of the site. Accordingly, the site is conspicuous within its local environment and, together with existing energy developments including other solar farms nearby, it would increase their influence within the local environment. However, there is no compelling evidence before me that undermines the accuracy of the appellant's Landscape and Visual Impact Assessment. Moreover, while there would be some landscape and visual harm associated with the proposal, this would be limited in its scale and extent, including cumulatively in relation to other solar farms nearby. Furthermore, these effects would reduce with the proposed scheme of planting, as it develops, and would be entirely reversible with decommissioning of the site and its restoration to agricultural use, which would also be controlled by planning condition.

Heritage

16. There are several Grade II listed buildings within the local area, and my attention is drawn to the 'County Boundary Post', 'Footbridge, Road Bridge and Sluices', and 'Ingleborough Mill'. I have also been referred to the Grade I listed Church of Saint Peter at Walpole St Peter; the Church of Saint Leonard at Leverington; and the Churches of Saint Mary at Long Sutton, Tydd St Mary, and West Walton. I have therefore had regard to the statutory duty referred to in Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 (PLBCAA).

17. The listed buildings draw significance from their settings and are experienced from rights of way in the locality. To my mind, the site does not contribute to the setting of any of the assets, given their distance, but they would remain visible and prominent from many other locations. Accordingly, the proposal would be unlikely to affect how they are understood or experienced in their respective contexts. In particular, I am mindful of the contribution made by agricultural landscapes to the setting of churches, but the proposal would not compete with the aforementioned churches or interrupt any designed views of them. The effect on the setting of the listed buildings would therefore be negligible and would not conflict with the requirements of the PLBCAA.

18. The site may also possibly include archaeological deposits, dating back as far as the Iron Age. A precautionary approach would therefore be appropriate in the context of the conflicting evidence before me regarding the potential for archaeological deposits. A condition requiring a programme of archaeological works would be reasonable and proportionate.

19. It would therefore not be necessary for me to consider the heritage balance or the concept of less than substantial harm referred to in the Framework.

Living Conditions and Risks Associated with the Development

20. Residential properties in the locality are some distance from the site, particularly those aspects that are more likely to generate noise, such as the substation and battery storage. The appellant's Noise Impact Assessment (NIA) confirms that noise generated by the proposal would be below background noise readings but the tonality of noise from some equipment may be 'just perceptible'. However, I am satisfied this level would not be such, in light of the background noise levels, so as to represent harm to living conditions of the occupiers of those properties from noise, subject to control over operational noise levels stated in the NIA.

21. While interested parties have raised concerns regarding noise and dust, I am satisfied that, subject to further inclusion of matters raised by KLWN's Community Safety and Neighbourhood Nuisance Officer, these can be addressed by conditions.

22. Interested parties have also raised concern regarding the potential for glint and glare from the proposal and its visual impact when viewed from nearby properties. The proposal would cover a large area, but the appearance and scale of the solar arrays, as well as the potential effects of glint and glare, would generally be addressed by the combined screening effect of existing and proposed planting. Any glint or glare perceptible beyond this would be so limited to not represent harm to living conditions of the occupiers of any affected property. The proposal would not therefore result in harm to the outlook and, thereby, the living conditions of occupants of the properties, and no further mitigation would be necessary.

23. Concerns have been raised with regard to the proposed battery storage and the risk of fire. This is an issue highlighted in other solar farm cases, and there have been examples of fires associated with such facilities, albeit that was some time ago and technology and design measures have changed. However, in such circumstances this issue can be addressed by a suitably worded condition, which would deal with comments from Norfolk County Council's Fire and Rescue Service.

24. The site would be monitored by CCTV served by infra-red lighting. With such security measures in place, the proposed development would be unlikely to exacerbate the potential for or fear of crime for neighbouring occupiers.

Vehicular Access (Including During Construction and Decommissioning)

25. The extent of traffic associated with the construction, operational, and decommissioning phases of the proposal would be 16 movements per day over the construction period and only the occasional visit for maintenance during the operation phase. In my view, and in comparison to existing traffic on these roads, this would not be a material increase and would have a negligible effect

on air quality. The width of the roads is also not uncharacteristic for a rural area such as that surrounding the site.

26. In any event, implications for the local network, including overrun of verges near to King John Bank and Gunthorpe Road crossroads, can be mitigated through the proposed Construction Traffic Management Plan and works to the highway. The former would include measures to direct traffic along a specified route. I note that neither of the local highway authorities in Lincolnshire or Norfolk raised concerns with the proposal subject to such provisions.

Ecology

27. The appellant's Ecological Impact Assessment is reasonable and proportionate for the nature of development proposed and includes mitigation measures that would ensure that Priority and Protected Species would not be harmed, including nesting birds. In addition, the biodiversity enhancements for the site may provide improvements to habitat for some of those species.

Other Considerations

28. The applications were submitted with the site identified on the requisite drawings. While an interested party has indicated there is a land ownership issue regarding part of the site, which could impact on the proposed development, this is a legal matter which cannot be dealt with in the appeals, and is for the relevant parties to resolve. Nevertheless, I am satisfied that the certificates of ownership for the applications and notification have been carried out in the correct manner. Similarly, whether the cabling proposed to connect to the substation could be implemented and any implications for the development, are matters for the developer and highway authority to resolve. Furthermore, boundary screening planted between land owned by separate parties could be implemented outside the scope of the appeal, subject to it being on land under the control of the appellant, so it would be unreasonable to insist it be set away from a boundary.

Planning Balance

29. Despite the absence of harm regarding several 'other matters' outlined above, conflict with SADMPP Policy 20 and SELLP Policy 31 renders it contrary to the relevant development plans. However, BMV land is plentiful in the Councils' administrative areas and the proposal would utilise a small amount of that land. Furthermore, given the proposed connection to the intended substation, this proposal could also not be located on previously developed land or non-BMV land, as demonstrated by other solar farms that have been located on such land nearby. I am also mindful the SADMPP does not identify any suitable sites for the location of solar farms in KLWN. Accordingly, I only afford moderate weight to the conflict of the proposal with the development plans to effectively avoid development of BMV land.

Benefits of the Appeal Scheme

30. The UK Government declared a Climate Emergency in May 2019 and KLWN followed suit in September 2021. In doing so, it adopted a Climate Change Strategy and Action Plan, Phase 2 of which is aligned with the amended Climate Change Act 2008[6] to achieve net zero greenhouse gas emissions by

[6] The (2050 Target Amendment) Order 2019.

2050, from a 1990 baseline. SHDC, together with two other Lincolnshire Councils, has a Strategy with an identical target. Furthermore, the UK Net Zero Strategy: Build Back Greener[7] sets a 78% reduction by 2035 and the Government's latest approach to energy is contained within the *Powering Up Britain Strategy*[8], which builds on the targeted reduction by committing to a fivefold increase in solar energy generation by 2035. The latest draft of the National Policy Statement EN-1[9] also reiterates the urgency of energy development deployment to support this commitment.

31. Given the scale and urgency of the emergency, I attach significant weight to this material consideration, including the impact of climate change on food production. A balance therefore needs to be struck to reduce the former to protect the latter, including in certain cases BMV. Energy and food security are therefore both key issues, which are affected by foreign markets.

32. The proposal has a current design of 39MW, with potential to generate up to 49.9MW, enough to power approximately 10,150 family homes, in a manner that would reduce the potential implications of CO_2 pollutants generated by equivalent electricity produced from fossil fuels by 8927 Tonnes each year it is operational. These would therefore amount to significant environmental and energy security benefits.

33. I am mindful that biodiversity net gain BNG is not yet mandatory for new developments, but the Framework is supportive of measurable attempts to secure such benefits. There would be BNG and landscape enhancement through implementation of the proposal, with onsite enhancement and mitigation measures, including considerable new hedgerow planting. Most of these benefits would be at least throughout the lifetime of the development, as there is a commitment to monitor and report on biodiversity, with a contingency to re-seed pasture and species-rich grassland areas if they do not establish. Environmental benefits associated with these aspects of the proposal would be of significant weight.

34. Although fallow periods can improve soil health, there is no substantive evidence before me to suggest that this would be the case for the specific soil types prevalent within the site in the context of the fallow period associated with the proposal. In this context, I am only able to afford this limited weight as a long-term benefit to agricultural production.

35. The selection of the proposed site ensures a viable scheme through minimised transmission losses, but this is the starting point for any scheme of this nature, and it would primarily serve to benefit the appellant, so it would only result in economic and environmental benefits of limited weight.

36. The proposal would enable the farm holding to diversify its income and help to secure the viability of the farming business in the long term. There is also no substantive evidence before me to demonstrate that land taken out of arable production would affect the workforce or overall viability of the farm holding, or that sheep grazing would be incompatible with reducing carbon emissions.

37. The construction phase would be over several months, a relatively short period, due to the lightweight nature of the proposals, but there are likely to be some

[7] October 2021.
[8] March 2023.
[9] March 2023.

benefits to the economy from the labour market and the procurement of materials and equipment, and some long-term employment through management, maintenance, monitoring and security of the site. Given the scale of the development proposed these would be social and economic benefits of moderate significance.

38. Taken together, I have outlined that the appeal scheme includes significant benefits in respect of energy security and the environment regarding the nature of energy generated, as well as biodiversity and landscape enhancements. There would also be some other moderate and limited benefits. This is balanced against the moderate weight to the conflict of the proposal with the development plans in respect of the loss of BMV land. When assessed against the policies in the Framework, taken as a whole, this leads me to an overall conclusion that material considerations indicate the decisions should be taken otherwise than in accordance with the development plans. This would therefore justify the grant of planning permission for the appeals.

Conditions

39. I note the appellant's general acceptance of the planning conditions listed provided by KLWN but, where appropriate, I have amended wording for clarity and removed tailpieces to conditions that circumvent the statutory route to vary conditions or deprive interested parties of the opportunity to comment.

40. I have imposed standard conditions relating to the commencement of development and compliance with the submitted plans, in the interests of achieving a satisfactory development. Moreover, in terms of the latter, it is not necessary to include a condition to secure further details of the proposed structures, as these are clearly set out on the drawings and acceptable for their intended purposes. I have also omitted the condition controlling height of solar panels as a maximum height is already specified on the drawings; and the condition regarding glint and glare, as the evidence shows further mitigation not to be necessary.

41. I have altered the wording of the conditions referring to the cessation and decommissioning or early decommissioning of the site for clarity. However, they remain necessary to ensure the land is returned to agricultural use as soon as it is no longer required for the development. The decommissioning period would be agreed in a scheme for the same.

42. A pre-commencement condition to secure a revised Construction Traffic Management Plan and Method Statement is reasonable in the context of the information provided to firm up the details in the application document. However, in the interests of living conditions of residents, I have amended the condition to refer to, amongst other things, construction machinery noise and dust. A separate condition is used to cover working hours during construction and decommissioning.

43. Pre-commencement conditions are also necessary to ensure proposed works to the access into the site and off-site highway works are carried out in the interests of safety of users of the affected roads; and to secure a scheme of archaeological works for safeguarding potential deposits in the site.

44. Despite the Environment Agency suggesting buildings have been designed to be flood resilient and resistant, to ensure safe operation of the battery storage

system and avoid fire risks and pollution, it is necessary to secure a safety management plan for the same.

45. A condition is necessary to ensure development is constructed in compliance with flood risk mitigation measures to safeguard it at times of high risk of flooding. Despite this, a detailed scheme of drainage is necessary to agree a satisfactory sustainable drainage scheme at the start of the development.

46. To minimise light pollution in the countryside, details of the luminance and fields of illumination of lighting for buildings and areas of the site are necessary prior to their use. I have merged all the conditions dealing with landscaping and tree protection, landscape and ecological management and biodiversity net gain, for clarity and to avoid duplication. These are necessary in the interests of the appearance and ecology of the development.

47. The appellant has provided a Solar Farm Grazing Management Plan, which satisfactorily explains how sheep grazing of the land around panels will be maintained throughout the development. This can be controlled by a condition.

48. The Councils have requested different planning conditions to deal with operational noise from the development. I favour that referred to by KLWN's Community Safety and Neighbourhood Nuisance Officer, as it is refers to the tonal noise relevant to the development and identified in the appellant's NIA.

49. To reduce the potential impact of other works on the agricultural land value of the site and its ecology, it would be relevant to the proposal to restrict any further buildings, enclosures, or other works; and for cabling to only be installed underground, except where it relates to connections between panels. A condition to secure mitigation for unexpected contamination is also necessary to safeguard the living conditions of residents.

Conclusion

50. The proposed development would be contrary to the development plans of SHDC and KLWN, when considered as a whole. Despite this, the material considerations I have set out, including the Framework, indicate that the appeals should be determined other than in accordance with them. Accordingly, for the reasons given, I conclude that both appeals should be allowed and, in respect of Appeal A, planning permission should be granted.

Paul Thompson

INSPECTOR

Schedule of Conditions for Both Appeals

1) The development hereby permitted shall begin not later than three years from the date of this decision.

2) The development hereby permitted shall be carried out in accordance with the following approved plans: 003 Rev 003; GR2.0 Revision 05A; GR3.0 Revision 03; GR4.0 Revision 01; GR5.0 Revision 01; GR6.0 Revision 01; GR7.0 Revision 01; GR8.0 Revision 01; GR9.0 Revision 01;

GR10.0 Revision 01; GR11.0 Revision 01; GR12.0 Revision 01; GR13.0 Revision 01; GR14.0 Revision 01.

3) Within 1 month of the date of first export of electricity, confirmation shall be given in writing to the local planning authority of the date of first export to the Grid. The development hereby permitted shall cease on or before the expiry of a 35-year period from the date of the first export of electricity and the local planning authority shall be notified of the cessation of electricity generation and storage in writing no later than 5 working days after the event. The land shall thereafter be restored to its former condition in accordance with a scheme of decommissioning work (the Decommissioning Scheme).

4) The Decommissioning Scheme shall be submitted to and approved in writing by the local planning authority no later than 6 months prior to decommissioning and shall include provision for the dismantling and removal from the site of the solar PV panels, frames, foundations, inverter housings and all associated structures, storage facilities and fencing. The decommissioning shall be carried out strictly in accordance with the approved scheme.

5) In the event the site ceases to generate and store electricity for supply to the electricity grid network for a period of 12 months, an Early Decommissioning Scheme shall be submitted to and approved in writing by the local planning authority, no later than 3 months from the end of the 12-month period. The scheme shall include the same provisions referred to in Condition 4 and the decommissioning shall be carried out strictly in accordance with the approved scheme.

6) Notwithstanding the submitted details, no development shall take place, including any site clearance or works of demolition, until a Construction Traffic Management Plan and Method Statement shall have been submitted to, and approved in writing by the local planning authority. This shall indicate measures to mitigate against traffic generation and drainage of the site during the construction stage of the proposed development and provide for:

    a) phasing of the development to include access construction;
    b) the parking of vehicles of site operatives and visitors;
    c) loading and unloading of plant and materials;
    d) storage of plant and materials used in constructing the development;
    e) wheel washing facilities;
    f) the routes of construction traffic to and from the site including any off-site routes for the disposal of excavated material;
    g) strategy stating how surface water run off on and from the development will be managed during construction and protection measures for any sustainable drainage features. This should include drawing(s) showing how the drainage systems (permanent or temporary) connect to an outfall (temporary or permanent) during construction;
    h) measures to control the emission of dust and dirt during construction; and
    i) measures to control noise generated by construction machinery.

The Construction Traffic Management Plan and Method Statement shall be strictly adhered to throughout the construction period for the development.

7) No development shall take place, including any site clearance or works of demolition, until the existing access onto Gunthorpe Road shall have been widened and all obstructions exceeding 0.6 metres high cleared from the land within the visibility splays as illustrated on Drawing number SK01 Rev D, and thereafter the visibility splays shall be kept free of obstacles exceeding 0.6 metres in height.

8) No development shall take place, including any site clearance or works of demolition, until the works to improve the public highway by means of carriageway junction widening at the crossroads of King John Bank/Marsh Road/Gunthorpe Road in accordance with the details as shown on Drawing number SP01 Rev E have been certified complete by the local planning authority.

9) No development shall take place, including any site clearance or works of demolition, until a Written Scheme of Investigation and timetable for a programme and reporting of archaeological works has been submitted to, and approved in writing by, the local planning authority. Development shall only be implemented in accordance with the approved scheme and timetable.

10) Prior to first use of the Battery Storage System, a Battery Safety Management Plan (BSMP) shall be submitted to, and approved in writing by, the local planning authority. The BSMP must prescribe measures to facilitate safety during the construction, operation and decommissioning of the battery storage system. The BSMP shall only be implemented as approved.

11) Notwithstanding the submitted details, prior to the development first becoming operational, a surface water drainage scheme shall be submitted to and approved in writing by the local planning authority. The scheme shall be based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development and provide details of:

    a) how run-off will be safely conveyed and attenuated during storms up to and including the 1 in 100 year critical storm event, with an allowance for climate change, from all hard surfaced areas within the development into the existing local drainage infrastructure and watercourse system without exceeding the run-off rate for the undeveloped site;
    b) attenuation and discharge rates which shall be restricted to 1.4 litres per second;
    c) the timetable for and any phasing of implementation for the drainage scheme; and
    d) how the scheme shall be maintained and managed over the lifetime of the development, including any arrangements for adoption by any public body or Statutory Undertaker and any other arrangements required to secure the operation of the drainage system throughout its lifetime.

The development shall not become operational until the approved scheme has been completed or provided on the site in accordance with the approved phasing and thereafter retained and maintained strictly in accordance with the approved details.

12) Details of the external illumination of all buildings and areas of the site, including details of luminance and fields of illumination, shall be submitted to, and approved in writing by, the local planning authority, prior to the first use of those buildings and areas and there shall be no external illumination other than that so approved.

13) The development shall be carried out in accordance with the Landscape & Ecological Management Plan, the mitigation measures in the Ecological Impact Assessment, and the Biodiversity Net Gain Assessment, all prepared by Delta Simons and dated February 2022, June 2021 and November 2021 respectively; and the approved details of landscaping, shown on Drawing No 1284/10 - Revision E, shall be implemented in the first planting season following the completion of the development.

Any trees/shrubs/plants which, within a period of five years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species. Similarly, any trees shown to be retained on the drawing shall be protected during construction work as follows:

a) chestnut pale or similar fencing 1.5 metres in height shall be provided around the trees to be retained before development is commenced at a minimum distance from the trunks equal to the spread of the crowns of the trees;
b) no materials, equipment, site huts, fuels or other items shall be placed or stored within the areas enclosed by the fencing so erected and the ground levels within those areas shall not be altered, nor shall any excavation be made;
c) no burning of materials or other items shall take place within 3 metres of the crown spread of any of the trees to be retained;
d) no services shall be routed under the spread of the crowns of the trees to be retained;
e) no retained tree shall be cut down, up-rooted, destroyed, topped or lopped unless first agreed in writing by the Local Planning Authority; and
f) if any tree which is to be retained dies or is to be removed it shall be replaced within six months thereafter with a tree of such size and species which shall be first be agreed in writing by the Local Planning Authority.

14) For the duration of the construction and decommissioning periods, construction/deconstruction activities and deliveries received at or despatched from the site, shall only occur between the hours of 0800- and 1800-hours Monday to Friday, 0800- and 1330-hours on Saturday and not at all on Sundays and Bank Holidays other than with the prior written approval of the local planning authority.

15) The development shall be undertaken in accordance with the Solar Farm Grazing Management Plan (SFGMP) dated March 2022 submitted as part

of the appeal statement. If for any reason grazing by sheep fails to occur for a period of more than 12 months, the solar panels, battery storage facilities and the related ancillary equipment shall be decommissioned and removed from the site in accordance with Condition 4 above.

16) The development must adhere to the predicted operational noise levels stated in Chapter 5 of the Noise Impact Assessment, dated 21 June 2021.

17) The development hereby permitted shall be implemented in accordance with the flood risk mitigation recommendations contained in the Flood Risk Assessment and Outline Surface Water Drainage Strategy, dated October 2021.

18) All cabling (with the exception of that connecting between solar arrays) shall be installed underground.

19) Any contamination that is found during the course of construction of the approved development that was not previously identified shall be reported immediately to the local planning authority. Development on the part of the site affected shall be suspended and a risk assessment carried out and submitted to and approved in writing by the local planning authority. Where unacceptable risks are found remediation and verification schemes shall be submitted to and approved in writing by the local planning authority. These approved schemes shall be carried out before the development [or relevant phase of development] is resumed or continued.

20) Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 2015 (or any Order revoking and re-enacting that Order with or without modification) no buildings, structures, fences, gates, posts, solar panels, hardstandings, footings, platforms, pavements, bunding, earthworks or other engineering operations shall be constructed, installed, or carried out on site other than in accordance with the details on the approved drawings.

End of Schedule