

Light Valley Solar

Written Summary of Applicant's Oral Submissions

Issue Specific Hearing 1

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Light Valley Solar

Deadline 1 Submission

Written Summary of Applicant's Oral Submissions at Compulsory Acquisition Hearing 1

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Table of Contents

1.	Introduction	1
2.	Written Summary of Applicant's Oral Submissions at ISH1	2
Appendix A	Replacements Position Table	87
Appendix B	Technical Note: Site 4 Access Route Selection	92
Appendix C	Applicant's Response to Action Point ISH1-35	99
Appendix D	Applicant's Response to Action Points ISH1-AP40 to ISH1-AP46	102

List of tables

Table 2-1	Written Summary	2
Table A-1	Replacement Works	87
Table C 1	Solar Development Site Landscape	101

List of Plates

Plate B-1	Access routes to Solar Development Site 4 as shown in the Transport Assessment	92
Plate B-2	Routes considered to access Site 4 from the A19	94

1. Introduction

- 1.1.1. This note summarises the oral submissions made by the Applicant at Issue Specific Hearing 1 held on 30 July 2026 in relation to the Applicant's application for development consent for the Light Valley Solar Project ("the Proposed Development").
- 1.1.2. Where the Examining Authority (the "ExA") requested further information from the Applicant on specified matters (including in its published Action Points), or the Applicant undertook to provide further information during the course of ISH1 for Deadline 1, that further information is set out in this or signposted as appropriate.
- 1.1.3. 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.
- 1.1.4. The structure of this note follows the order of the items listed in the detailed agenda for ISH1, focussing on the items where substantive submissions were made by the Applicant.

2. Written Summary of Applicant's Oral Submissions at ISH1

Table 2-1 Written Summary

#	Agent Item	Written Summary of the Applicant's Oral Submissions
3	Draft Development Consent Order matters	<u>Explanatory Memorandum</u> The ExA indicated that, given the applicant was likely to submit an updated draft DCO early in the examination, it should review and update the Explanatory Memorandum to ensure that sufficient, detailed justification is included for all the powers sought. The justification needed to be specific to Light Valley Solar with clear reasoning. Mr Fox on behalf of the Applicant confirmed agreement and stated that the Applicant anticipated submitting an updated Explanatory Memorandum with each version of the DCO to allow the ExA to see the evolution of the applicant's responses to questions raised. <i>Post Hearing Note: Further to Action Point ISH1-1, the Applicant will submit this at Deadline 2.</i> <u>Permitted Preliminary Works (PPWs)</u> <i>Post Hearing Note: This summary has been produced on a thematic basis rather than reflecting exactly the flow of the discussion at the Hearing, as there was some repetition in the points made by in the discussion.</i> <u>Scope of the PPWs</u>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA noted that the definition of "permitted preliminary works" in Article 2 contains a broad list and asked the applicant to explain why these works need to be preliminary and needed to be taken forward specifically for the Proposed Development. Mr Fox on behalf of the Applicant explained that, with the exception of certain Light Valley Solar specific items in the definition (items (k)-(o)), the list reflects a common approach to the definition of PPWs for DCOs. The PPWs are brought forward on the basis that they are preliminary to the main construction works commencing, and are of such scale and nature so as to (unless noted) not require the controls secured by the DCO in the same way as is required for the main works. They relate to works that are standard 'pre-construction' phase works for all types of development, and works that involve essentially getting a site ready, and surveyed, before main works commence: ▪ non-intrusive environmental surveys, geotechnical surveys (and associated remedial work) and intrusive archaeological surveys are all surveys undertaken before main works commence. This is true for all projects, but noting also that the Outline Construction Environmental Management Plan (oCEMP) [APP-192] for the Proposed Development requires a number of surveys to be undertaken before construction starts; ▪ above ground site preparation, provision of temporary means of enclosure; temporary means of enclosure and site security, and display of site notices are all required to get any construction site 'construction-ready'; and ▪ the diversion of apparatus and site clearance ensures that there is a 'clean site' before construction works commence. Mr Fox noted that in the next iteration of the DCO, paragraph (j) will be updated to remove reference to removal of plant and machinery (as this duplicates (d)). In respect of the other matters, Mr Fox noted that:

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		- Work No. 9B (the bird mitigation area (BMA)) is on the list in the context of the seasonal restriction commitments set out in the oCEMP [APP-192] in respect of the bird mitigation area needing to be delivered early in the programme, which have underpinned the Habitat Regulations Assessment (HRA) [APP-223]; - Work 8 involves the works needed to facilitate access to the Proposed Development (including access points and highways improvement areas). If these works were not undertaken first, construction would not be able to take place, as the Site could not be accessed; - advanced planting refers to the commitment that the Applicant has made to put in place planting at (subject to re-assessment at detailed design and working with landowners to bolster existing planting) certain locations prior to the installation of panels, to mitigate Glint and Glare effects. Given this commitment and the need to account for the advance planting to grow to achieve its mitigation outcomes (see the discussion on LVIA later in this Summary), this needs to be delivered in the preliminary stage; and - the footpath works and Work No. 10 (noting that paragraph (n) will be updated at Deadline 2 to remove duplication) are preliminary, as they perform a similar role of the diversion of apparatus – the footpaths need to be moved 'out of the way' to facilitate development, and the permissive paths may be put in place early to set the starting point against which development is then built around them. Mr Fox concluded that therefore all these works can be justified as being PPWs. Whilst he acknowledged that some may debate if the word 'preliminary' is appropriate, the Applicant considers that they are preliminary to the main construction works for the Proposed Development, notwithstanding that they include Work Numbers within the definition.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Post Hearing Note: The Applicant notes that the above matters are noted for Action Point ISH1-2, due for Deadline 2. The Applicant can confirm that it will add the above justification to the Explanatory Memorandum for that deadline. <u>Control of the PPWs</u> The ExA noted that permitted preliminary works sit outside the scope of commencement and can therefore be carried out prior to the discharge of the Schedule 2 requirements and the approvals required therein. The ExA asked how those works would be controlled. Mr Fox noted that some works are controlled by a relevant requirement where this has been considered necessary. An example of this is the intrusive archaeological surveys which are controlled by the archaeological mitigation strategy (as Requirement 11 refers to the 'authorised development' (which includes the PPWs) needing to be 'carried out' in accordance with that strategy), and that the bird mitigation area cannot be brought forward until the bird mitigation area management plan is approved (Requirement 7). He also noted that the diversion of apparatus would be controlled by the Protective Provisions set out in Schedule 15 to the draft DCO. Mr Fox went on to confirm that unless directly referenced in the DCO requirements (as is the case for the Bird Mitigation Area and archaeological surveys), the PPWs would not be formally controlled by the current drafting of the DCO. In light of this, the ExA queried whether there is in fact a need to include in the requirements a mechanism to control PPWs - an approach which was made in other orders such as Springwell, or if not, that the Applicant would need to provide an explanation as to why such a control is not needed.

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		Mr Fox responded that the Applicant could take this point away and provide an update in respect of the approach on this matter. Post Hearing Note: This is encapsulated in Action Point ISH1-3, due for Deadline 2. The Applicant can confirm that it is putting in place a control document for PPWs and will submit this at Deadline 2. <u>Temporal Scope of Preliminary Works and the Environmental Assessment</u> The ExA raised a further concern: the draft DCO would allow for the PPWs to be undertaken before commencement. Given commencement has a 5-year time limit in the DCO, this means that the Applicant could undertake the PPWs, and then not actually commence construction until 5 years later. The ExA asked how the Environmental Statement has considered this, given that this could mean that the total period during which these works and the construction phase could occur could in theory be up to eight years, whereas the Environmental Statement assessed only a three-year construction phase. Post Hearing Note: These themes are encapsulated in Action Point ISH1-4, due for Deadline 1. The text below therefore reflects what was stated at the Hearing, supplemented by further considerations. The Applicant notes that no specific control currently exists for this matter. However, as a starting point it is considered that such a scenario is not, in practical terms, a 'realistic' worst case. It would not be commercially sensible for the developer to undertake preparatory works and then leave a lengthy gap before commencing construction. It is acknowledged, however, that such commercial reality is not something that can be 'controlled' per se.

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		Notwithstanding this, the Applicant's position is that with one exception (discussed below), it is not the case that undertaking the PPWs starts off an 8-year continuous construction period or 8 years of 'construction effects'. Specifically: ▪ surveys are one-off activities which involve minimal traffic movements. Once they are completed, to the extent that there is any gap in time to main construction works, any construction 'effects' are not happening – the land continues to be what it is now; ▪ diversion of apparatus similarly involves a one-off activity with minimal traffic movements. Once they are completed, to the extent that there is any gap in time to main construction works, any 'effects' are not happening – the land continues to be what it is now, particularly as for the Proposed Development, such diversions would be underground; ▪ the creation of the bird mitigation area is a one-off event that then has a beneficial impact for birds. Given what it is there for, no other construction activities can take place on that land, so there is not a continuous 8 years' period in and around Solar Development Site 1; ▪ once the diversion of footpaths and the creation of permissive paths has happened, which involves minimal engineering works, they are there able to be enjoyed by the public, but there is not then an on-going effect, given the nature of the works; ▪ any environmental effects associated with Work No. 8 and site clearance are already assessed. Once the effects associated with those works happen (e.g. removal of hedgerow), they cannot happen again, and so the loss <u>has</u> already been accounted for in the ES, irrespective of whether there is a delay. As noted at the Hearings, the Applicant acknowledges that the exception to the above, is if equipment associated with/installed pursuant to PPWs could be left on site, causing long term impacts (e.g. LVIA or ecology) if left in situ before main works commence.

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		Having reflected on this, the Applicant considers that this is a matter that should be controlled. As such in the control document for PPWs referred to above, the Applicant will include a commitment that any above ground infrastructure installed in connection with the PPWs will be required to be removed if construction of the Proposed Development has not commenced within a certain time period. The Applicant is also considering whether the control document should also include commitments in respect of removed habitats where there is a gap in time, but appreciating the need not to inadvertently cause impacts to be repeated. Finally, in respect of the overall concern about there being a delay and this causing uncertainty for the Council and residents, the Applicant will be developing the DCO and the control document for PPWs to ensure that there is clarity in the programme for PPWs, and following that, phasing of the main construction works. The Applicant notes that at the Hearing that it indicated that both aspects of this might be incorporated in one new phasing plan requirement in the DCO. However, it is now considering whether this is the best approach, in the context that the timetable for the main construction works will not likely be known until close to the end of the PPWs. An update on this will be provided at Deadline 2 as part of the submission of the DCO and the PPWs control document. <u>Replacement Activities</u> The ExA noted that the definition of "maintain" in the draft DCO is quite broad as it includes the power to remove, reconstruct and replace with no upper limit — such that reconstruction or replacement of the whole of the authorised development could in principle be possible. The ExA asked the applicant to briefly explain the extent of replacement works that are anticipated and how they would be undertaken in practice.

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		Mr Fox confirmed that this is an issue that arises on a number of schemes, and that the Applicant had specifically assessed maintenance and replacements in the Environmental Statement and put in place relevant controls in the Outline Operational Environmental Management Plan (oOEMP) [APP-193]. There is deliberately no upper limit on the definition because that assessment has been undertaken. The ExA asked how the replacement works would be undertaken in practice. Mr Fox referred to section 2.8 of the Environmental Statement which illustrates maintenance during the operational phase. Moreover, paragraph 2.8.32 sets out the assumptions which have been used in relation to operational life and expected number of replacements. For example, solar panels have an expected operational life of 40 years or more, and with a 60-year operational lifetime, the panels would be expected to be replaced once during the operational phase, and this is anticipated over a maximum 12–24 month period. Comparably, the Battery Energy Storage System (BESS) compound infrastructure is anticipated to be replaced up to five times. The oOEMP [APP-193] addresses environmental controls for managing traffic impacts, soils, and related matters during those works. <u>Environmental Statement baseline data</u> The ExA asked how the applicant can safely demonstrate that the baseline data in the Environmental Statement is a reliable reflection of the future baseline at the point when replacement works would actually be undertaken — noting, for example, that there could be new residential developments in the intervening 30–40 years, or established habitats by the time the BESS is replaced. In discussion it also sought clarity as to whether there are sufficient controls in the oOEMP [APP-193], particularly given that the detailed version(s) of this plan will be approved at final commissioning. <i>Post Hearing Note: These themes are encapsulated in Action Points ISH1-5 and 6, due for Deadline 1. The text below therefore reflects what was stated at the Hearing, supplemented by further considerations.</i>

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		The Applicant notes that it has considered this in preparing the application and considering the controls to be put in place, noting that the ES did assess future baseline, but that for some topics (e.g. traffic) it is not possible to consider what the baseline environment/receptors present would be in 40+ years. The Applicant has therefore set out its position for each topic in the table in Appendix A to this Summary, noting as a starting point, that any replacement activity would involve far less traffic movements (as there would be no need to replace cables or ancillary equipment and unlikely to be BESS and solar being replaced at the same time) less workers, and would use access points already created during the construction phase/first operational use. This Appendix demonstrates, that with small tweaks to the oOEMP [APP-193], there are sufficient controls to ensure that the conclusions of the ES in respect of replacement campaigns (i.e. no significant effects) hold true even with an evolved future baseline in year 40+. Separately, North Yorkshire Council sought greater clarity on the relationship between the OEMP and the Landscape and Ecological Management Plan; the nature of operational ecological monitoring and reporting; the governance processes; and the procedures for addressing unforeseen ecological effects or conflicts with biodiversity net gain. In response, Mr Fox noted that the DCO requirements relating to the Landscape and Ecological Management Plan and the Biodiversity Net Gain Strategy subsist throughout the lifetime of the development, and that any replacement activity would need to comply with those management prescriptions in place for ecology and landscape including the Biodiversity Net Gain (BNG) areas. <u>Compulsory Acquisition and Optionality</u> The ExA noted that where the final form of the proposed development remains uncertain, it needs to be certain that the right statutory tests are met under section 122 of the Planning Act 2008. In particular, the ExA asked the applicant to show how it demonstrated the necessity and proportionality of

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		compulsory acquisition when considering the extent of permanent rights sought. Ultimately, the ExA noted that this appears to be contingent upon information, investigations, or design development that would only be available after the DCO has been made. The ExA also noted that at the Compulsory Acquisition Hearing, the panel had discussed optionality in the scheme — where certain sections of land would only be required depending on which design option is ultimately implemented. The ExA asked how this would be secured in the draft DCO and to demonstrate that compulsory acquisition powers would only be sought for the final confirmed routes. The ExA also asked when a landowner would be told that their land is no longer required. Briefly, the ExA noted the possibility of a draft requirement or modification which restricts the compulsory acquisition powers within Article 21 to only the elements of the scheme that are confirmed to be implemented – noting that this would not be an unusual approach. Mr Fox confirmed that Article 21 of the DCO already states that the undertaker may only acquire compulsorily so much of the land as is required for the authorised development. If land is not required, then any General Vesting Declaration in respect of that land could be challenged on ultra vires grounds as the undertaker would be unable to demonstrate the land is required for the authorised development. The ExA queried whether it would be as simple as listing the land plots applicable to option A and those applicable to option B - providing certainty that only the land required for the chosen option is taken. Mr Fox indicated there are two separate issues: On optionality – a cable route choice between alternatives means that one set of landowners should not remain under the shadow of acquisition once powers have been exercised in relation to the other route. Mr Fox acknowledged that drafting can be put in place (whether in the DCO or another document) to deal with this specific issue. On the flexibility sought in the order - in the context of the standard 50-meter cable corridor; the actual easement width would only be 10 meters. The Applicant insists that they would only be able to use the

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		powers over the easement width for that cable due to Article 21. As discussed in its Summary of Oral Submissions at CAH1, this is a standard approach, and the land is required to ensure that the proposed development can be delivered within the allowed width. As discussed in the Summary of Oral Submissions at CAH1, the Applicant is considering the appropriate approach to be taken on the former issue, at Deadline 2.
4.1	Scope of the Proposed Development	<u>Site Selection and the 25 km Search Area</u> The ExA invited the Applicant to explain the rationale for the 25 kilometre (km) site selection radius used to identify potential sites for the Proposed Development. On behalf of the Applicant, Mrs Caroline Reeve, Technical Director at AECOM explained that the starting point and primary driver for the search area is a viable proximity to the point of connection, and the radius is drawn from that point in terms of the search area. The 25 km length site selection radius takes into account electrical elements in terms of efficiencies and cable length considerations, as well as the overall viability of the scheme in terms of distance from the point of connection. Mr Fox, of Pinsent Masons LLP, on behalf of the Applicant, supplemented that explanation by noting that cable route lengths have been considered in a number of previous solar DCO examinations and that the approach adopted by the Applicant was consistent with, and in some respects more comprehensive than, approaches adopted on other schemes. By way of example, One Earth solar farm decision involved an applicant using a 10 km radius, with a sensitivity analysis extending to 15 kms, which was considered appropriate by the Secretary of State. In addition, on smaller schemes such as Helios, a 10 km radius was considered acceptable. He noted that smaller cable distances had been accepted on previous projects and submitted that the Applicant had adopted a wider search area than had been required in certain comparable developments. The applicant submitted that the 25 km radius

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		adopted for this project goes further than those examples and is appropriate in the context of the factors relied upon. Post-Hearing Note: <i>The Applicant has reviewed the radii for the other schemes referred to during the hearing, and corrects its submission in respect of Helios Renewable Energy Project where a 5km search radius (not 10km) was used in that project.</i> The ExA subsequently asked whether there is a point at which an increased distance would render a scheme unviable. Simon Gillett, Director at Humbeat, on behalf of the Applicant stated that it is true that the schemes which are close to the point of connection are more viable and the schemes which are away from the points of connection are less viable. However, this is dependent on a number of factors and there is no threshold. In terms of the electrical connection, the Applicant has assessed the transmission losses over the longest period of transmission within this scheme (from Solar Development Site 1 to Solar Development Site 4), and this is 0.16%, meaning that over 99% of the electrical power generated at the scheme would reach the point of connection (this responds to Action Point ISH1-7). Mr Fox on behalf of the Applicant also mentioned that conceptually, the further one travels from the point of connection (i.e. if an even bigger search area was used), the more land would be required, which would in turn give rise to greater justification difficulties for compulsory acquisition purposes. <u>Design Refinements (High-Grade Agricultural Land)</u> The ExA sought clarification as to what design refinements had been undertaken following site selection to avoid or minimise locating elements of the development on the highest quality agricultural land within the individual solar sites. Ms Jackson, Planning Director at Icen Projects, on behalf of the Applicant, responded that agricultural land classification was considered. Once the sites were

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		established, they went through the process of defining parameters to avoid constrained areas. Initially, publicly available information on Best and Most Versatile ("BMV") land was used, and at later stages this was supplemented by the agricultural land surveys undertaken by the project team, following engagement with the local authorities and Natural England (NE). In terms of BMV land and layouts within the scheme, the principal focus was on elements such as the Battery Energy Storage System ("BESS") compound and substations, rather than the solar panels themselves, which have a relatively light-touch impact on BMV land. Mr Fox added to this, referencing the Design Approach Document [APP-216]. Throughout this document (e.g. Table 3.6), the process from the point of site selection onwards is described, and agricultural land is identified as a factor considered during the development process across the pre-application. By way of example, the BESS was considered a factor for this. Mr Fox emphasised that BMV land is one factor amongst many that shaped good design within the solar development sites, and needed to be balanced alongside the policy tests, for matters such as flood risk, Green Belt, and environmental constraints such as noise and visual receptors. The Design Approach Document [APP-216] explains how this balance has been achieved. <u>Flexibility in Layout</u> The ExA raised a concern that certain elements within the proposed layout are indicative rather than fixed, including conversion units identified as being located on BMV land, predominantly in Grades 2 and 3a. Where the number and the location of these are subject to change at the detailed design stage, the ExA asked how they can be certain about the actual extent of effects on agricultural land in these locations and therefore, what the conclusion about those areas should be considered to be. Ms Jackson responded that for smaller distributed units across the scheme, the applicant would ensure that these are placed in the most suitable locations, with greatest weight given to avoidance of flood risk given the flood-sensitivity of such equipment.

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		Post Hearing Note: <i>Further to the above, the Applicant can confirm that the assessment deals with flexibility in the final conversion unit areas by basing the assessment on the integrated unit footprint, which represents the largest land-take option and are therefore the worst-case assessment scenario. Across the Proposed Development, 123 conversion units have been counted, with a combined area of 1.2 hectares (ha) (based on 96sqm per unit). The current assessment assumes that half of these units would be located on BMV agricultural land, and half on non-BMV land. With the exception of Solar Development Site 6, the current layouts indicate that the majority of conversion units are within Grade 3a and 3b agricultural land. As such if they were all in the BMV land that would increase the amount of BMV land affected (but in this case only on for the project lifetime, not permanently) by the Proposed Development described in the ES by 0.6 ha, which is an extremely small amount in the context of the wider numbers considered in the ES.</i> <u>Agricultural Land and Site Design</u> The ExA noted that the Environmental Statement identifies 19.1 ha of agricultural land as permanently sealed as a result of the development, primarily associated with the BESS compound and substations. The ExA acknowledged that those areas have been assessed as effectively permanently lost for the purposes of the Environmental Statement. In line with this, the ExA further raised the question of whether landscape and ecological measures, including woodland planting, hedgerows, and the bird mitigation area, had been assessed as permanent losses. The ExA asked whether these areas would be retained post-operation and if so, has the area of agricultural land lost been quantified and assessed within the environmental statement as permanent loss. Mr Fox responded that the Outline Decommissioning Environmental Management Plan (oDEMP) [APP-194] secures this and the land would be returned to its current use and its landowners as it currently is today. He noted (further to questions from the ExA), that the assumption in the oDEMP

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		[APP-194] (and Chapter 2 of the ES [APP-040]) applies to landscaping and planting, not just physical infrastructure. Therefore, this has not been included within "permanent loss" as the assumption is that any planting would be removed and the land able to be re-used for agriculture. The ExA queried whether it is realistic to assume that these areas would in fact be removed, given the potential policy and legislative protections that could apply to 60-year old planting. Mr Fox acknowledged that, whilst it is not appropriate for the DCO to impose controls on landowners who are receiving their land back as agricultural land to keep the planting in place, the scenario raised by the ExA is a possibility, that has been recognised by the ES. As such, he confirmed that the Applicant would provide a sensitivity test for this scenario into the Examination. This has been confirmed as Action Point IS1-8 and will be provided at Deadline 2. A query was raised at the Hearing in respect of the Applicant's comments made at the Open Floor Hearing about the amount of land that is currently used for non-agricultural purposes within the Order limits. Mr Fox confirmed that 272.4 ha within the Order limits is used for sustainable farming initiatives or to service an anaerobic digestion plant, which is a 1/3 of the land within the Solar Development Sites. He went on to say that it will be for the landowner to decide whether or not he would want to keep the anaerobic digestion plant in operation (and use other fields to service it). In terms of replacing the energy which the anaerobic digestion plant is providing to the grid, this would be a matter for National Grid, as they would decide how to replace that energy supply. In response to a separate query at the Hearing, Mr Fox confirmed that the Applicant's approach to cable removal at decommissioning stage is set out at paragraphs 2.1.5 to 6 of the oDEMP [APP-194]. <u>Design Parameters and Good Design</u>

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		The ExA referred to Table 2-1 of ES Chapter 2 [APP-040]. <u>Conversion units</u> The ExA asked about why different options were proposed and what factors may influence which option is chosen and this cannot be fixed at this stage. Mr Gabb stated that the application includes flexibility in design so as to take advantage of changes in technology should the DCO be granted. Accordingly, both integrated and disaggregated conversion units have been considered to enable that flexibility. Mr Gabb confirmed that the choice between integrated and disaggregated units will depend on the technology available at the time of the implementation. In terms of certainty, the ExA noted that this is confirmed at the detailed design stage as to which type would be utilised on site. Mr Gabb confirmed this was the case. For the LVIA, the maximum parameter has been used and this provides flexibility in the choice of unit at a later stage and is accommodated within the assessment. <u>Switch rooms</u> The ExA noted that the assessment considers that switch rooms are interchangeable with the conversion units. The ExA asked for a brief explanation on why these are interchangeable and the Applicant does not require both. Mr Gabb stated they are interchangeable with conversion units in the sense that they are the same size and share related parameters. The location of either can therefore be flexibly determined at detailed design stage following the grant of development consent.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA sought clarification on the figure of 123 units identified in Table 7.5 of the Planning Statement [APP-207]. The applicant confirmed that the figure of 123 refers to units that could be either conversion units or switch rooms, not a cumulative total of both. Mr Gabb confirmed this is correct. <i>Height and size of switch rooms</i> The ExA noted that the maximum height of switch rooms and conversion units is cited as maximum 3.5 m, but — unlike the photovoltaic panels and the BESS — this height is not defined as being above ground level, and the depth cited for the concrete plinths is not defined. The ExA asked the Applicant to clarify whether the 3.5 meter height for the conversion switch room takes into account foundation depths and any freeboard that might be required for flooding. Mr Gabb responded the applicant has assessed maximum parameters for the Solar Development Sites. They assessed 4.5 metres (m) for the panels. Therefore, if the ultimate foundation level were to increase to account for flood level, this would still remain within the 4.5 m. The ExA asked whether this would remain below 4.5 m and so the assessment has considered worst case impact from the elements of the project – to which Mr Gabb confirmed this to be the case. Mr Fox added that the Design Parameters and Commitment Document [APP-217] does have a sentence in relation to depths and this is what is secured. The ExA asked whether the Applicant is confident on whether this would potentially push above the 4.5 m in total due to the increase above flood levels. Mr Gabb confirmed confidence that no areas exist where the cumulative height of the plinth, any freeboard required for flood levels, and the conversion unit itself would exceed the 4.5 m parameter. The applicant further noted that, should that envelope be at risk of being exceeded, conversion units could be re-located to avoid areas of flooding. <u>Substations</u>

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		The ExA noted Palisade Fencing and Deer fencing and asked whether the applicant required both. Mr Gabb stated that both have been assessed and so both could be implemented if required. The detailed design would determine what is required. <u>BESS Compound Foundation Depth</u> The ExA noted that the BESS Compound can be on a foundation up to 15 m and why can't there be more certainty around foundation type at this stage, given that the BESS compound has been identified as a specific works area. Mr Fox confirmed that amendments will be being made to the reference in the Design Parameters and Commitments document to a two-metre deep foundation and up to 50 m depth pile. <i>Post Hearing Note: This update will also be reflected in the relevant part of Chapter 2 of the ES as requested by the ExA in Action Point ISH1-9 at Deadline 2.</i> <u>Grid Connection Capacity and Over-Planting</u> The connection agreement for the project allows for the import and export of up to 500MW AC. Over-planting is proposed, and the ExA has asked the Applicant to confirm the proposed installed capacity and whether the figures cited in the application relate to AC or DC – noting Table 5.1 of Appendix 14.1: Transport Assessment of the ES [APP-178] identifies potential generation capacities for each of the solar development sites which total 608 megawatts. Mr Gillett on behalf of the Applicant answered that the application includes flexibility for either single-axis tracker or fixed south-facing panels, noting that the land density of the two layouts differs. Within the application there are two numbers for the current indicative installed capacity. For fixed south-facing

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		panels, the indicative installed capacity is 662MW DC. For single-axis trackers, the indicative installed capacity is 608MW DC and this is based on the layout for single-axis trackers. Both figures represent the capacity of the panels to generate DC current. The ExA asked the Applicant to explain, based on the above, what the overplanting ratio is for the Proposed Development. Mr Gillett on behalf of the Applicant noted that the Statement of Need [APP-214] [section 7.6] talks about overplanting and this provides technical context on what overplanting is, why is it rational but too much is not a sensible thing to do. The ranges stated (1.3 to 1.6) indicates a rational range for overplanting. NPS EN-3 defines overplanting as the ratio of the installed DC capacity to grid connection capacity. For the Proposed Development, fixed south-facing panels (based on the indicative design), this is approximately 662/500 (approximately 1.32), and for single-axis trackers approximately 608/500 (approximately 1.22). The ExA subsequent asked about NPS EN-3 and its statement that solar farms require 4 to 5.6 acres per megawatt of output and how that compares to the Applicant's proposals querying also if the MWage presumed is what is provided to the grid, or what can be produced by the illustrative layout. Mr Gillett stated that the approach followed was that agreed by the Examining Authority and the Secretary of State for the Mallard Pass Solar Farm, which is: the acreage of land provided for by Work No. 1 (which accounts for overplanting), excluding mitigation and enhancement areas; divided by the DC capacity.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The Applicant's conclusion is that by following the approach used at Mallard Pass as described above, the proposals show a ratio which are within the guidance range included in NPS EN-3 for the indicative overplanted designs for both panel orientations.
4.2	Green Belt	<u>Cable Construction Compound and Engineering Operations</u> The ExA turned to the assessment of the cable route corridor within the Green Belt and noted that the Applicant's assessment categorises the works and development associated with the cable route corridor as engineering operations – therefore not inappropriate development on the Green Belt, and therefore not needing to be considered as part of the Applicant's Green Belt analysis. However, the ExA noted that there is a Cable Construction Compound which is proposed along the section of Cable Route Corridor (CRC) 4 – Point of Connection (POC) to the point of connection that is within the Green Belt, and queried whether the same analysis applied to that compound. Ms Jackson on behalf of the Applicant stated that the Cable Construction Compound would be temporary works (and thus would have limited effects to openness) and it would need to be considered if they would be considered to be 'engineering operations'. She committed to the Applicant providing further submission on this point. <i>Post Hearing Note: This has been provided and thus delivering Action Point ISH1-10 below:</i> <i>On the question about whether a construction compound positioned on the Cable Route Corridor would be considered inappropriate development in the Green Belt, there is one such compound in the North Yorkshire Council Green Belt Area serving CRC 4 - POC, see Figure 2.2, Cable Route Corridor Numbering, sheet 6 of 6 [APP-060]. The area of the Cable Construction Compound is delineated on Works Plan [AS-004] sheet 20 of 22 (Works Number 7).</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>Each Cable Construction Compound, as set out in ES Chapter 2 [APP-040] will comprise temporary site offices, a welfare area and a parking area. There will be a temporary laydown area at the Cable Route Corridor access point (paragraph 2.7.7). The construction programme for the full Cable Route Corridor would require approximately 24 to 36 months. While delivery of the construction works will be phased across the entire LVS site, as phasing plans are not yet available, it is therefore necessary to assume the Cable Construction Compound in the Green Belt may be in situ for up to three years.</i> <i>Whilst some aspects of this may be considered to be 'engineering operations', the Applicant acknowledges that, on balance, the compound can be considered to be 'inappropriate development', subject to the application of the policy tests.</i> <i>In this regard, the Applicant's view is:</i> <i>the location of CRC 4 - POC Cable Construction Compound is in grey belt land, as its location does not contribute to the purposes of Green Belt under paragraph 143, sub-sections (a), (b) and (d)¹. This is in line with the reasons set out in the submitted Grey Belt Assessment [APP-209] and in brief is due to the site location some distance away from any town. In the context of the proposed use, there are no strong reasons for refusal with reference to footnote 7 of the National Planning Policy Framework (NPPF). This includes flood risk whereby the Cable Construction Compound is in FZ1, and no other environmental constraints as shown in the Statutory and Non-Statutory Natural Environment Sites and Features Plans (see sheet number 8 of 8) [APP-012], and the Statutory and Non-Statutory Historic Environment Features Plans [APP-013];</i> <i>the development of the compound in this location would not fundamentally undermine the purposes of the remaining Green Belt across the area of the plan, given its short term nature (both in terms of the overall use of the site, but also the transient nature of the activities within it) and that for purpose (c), the</i>

¹ Purpose (a) contributing to preventing urban sprawl; purpose (b) preventing neighbouring towns from merging; and purpose (d) protecting the special character and setting of historic towns

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>Cable Construction Compound would not lead to encroachment in the countryside (by virtue of being temporary and in no way urbanising the area), and for purpose (e) the Cable Construction Compound would in no way prevent urban regeneration in other urban areas; and</i> <i>the Applicant's position in the Grey Belt Assessment [APP-209] applies to this location equally, in respect of the other tests in paragraph 155 of the NPPF. The Cable Construction Compound is necessary in the specific location proposed by virtue of the location of CRC 4 - POC, facilitating efficient construction of the Cable Route, including but not limited to taking traffic off the highway network.</i> <i>As such, the Applicant considers that the Compound does not need to be considered 'inappropriate development' and the wider Green Belt test does not need to be applied to these activities.</i> <i>If any party does not agree with this and considers that it should be considered as being inappropriate development, then the Applicant considers that the Very Special Circumstances test should be considered to be made out, for the reasons set out in the Grey Belt Assessment [APP-209] which equally apply to this specific location.</i>
4.3	Noise and Vibration	<u>Construction Noise and Vibration</u> The Examining Authority ("ExA") noted that a number of Relevant Representations raised concerns regarding noise impacts arising from the Proposed Development, including concerns raised by parish councils and individuals. The ExA invited the Applicant to identify which construction activities would generate the highest noise levels and which receptors would be most affected. Mr Hiller (Director of Acoustics at Arup) on behalf of the Applicant referred to Appendix 11.2 of the Environmental Statement [APP-172] and how this appendix shows the assumptions and results of modelling which informed the construction noise assessment. Mr Hiller stated that this is based on the identification of representative receptors and predicted noise levels associated with specific construction activities.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Hiller explained that the results are presented at each individual assessed receptor in Table 2-1 and Table 2-2 of Appendix 11.2 of the Environmental Statement [APP-172]. The assessment of construction noise impact has been carried out using the British Standard 5228: Part 1 and by reference to the ABC method presented within the standard. The ABC method sets a number of categories of impact at different sound levels and these are related to the baseline and ambient sound levels in these locations. For every assessed receptor, the Applicant has assumed the lowest ABC category, effectively treating each location as the quietest background category, so as to provide a worst-case assessment. The tables of results presents predicted construction noise levels for all the various activities and the exceedance (or otherwise) of the assessment category based on the ABC method. The highest source noise levels arise from the various pieces of equipment involved in the construction of the electrical infrastructure and the battery energy storage site – and this is set out in Table 1-1 of Appendix 11.2 of the Environmental Statement [APP-172]. The battery energy storage site construction is presented as a sound power level which isn't the sound level that is experienced but rather it is a characteristic of the source. This informs readers about the source rather than its impacts. The receptors assessed are shown at Figure 11.2 [APP-099] and the sound levels and the levels relevant to the assessment thresholds are given in Table 2-1 and Table 2-2 of Appendix 11.2 of the Environmental Statement [APP-172]. The ExA asked about the assumptions used within the assessment to arrive at the realistic worst-case scenario (i.e working hours, activities, construction, duration, and aspects of construction such as horizontal or directional drilling). Mr Hiller stated that the source noise levels are based on the assumptions of what particular items of plant will be required for each of those construction activities. For each of the pieces of equipment required there is a sound power level (or a sound pressure) which is applied to each piece of kit. A

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		sound power level or sound pressure level is applied to each piece of equipment, primarily drawn from British Standard 5228: Part 1, and supplemented by the Applicant's experience of processes and equipment required for these construction activities. The assessment takes into account the likely percentage on-time for each piece of plant, recognising that different equipment operates for different periods of the construction period. Mr Fox added that the general assumptions regarding working hours, horizontal directional drilling, trenchless techniques, seasonal restrictions, and similar matters are taken from ES Chapter 2 [APP-040] and the oCEMP [APP-192]. Whilst those assumptions are not repeated throughout each technical chapter, they provide the overarching basis for the assessment, including assumptions relating to working hours and mitigation measures. The ExA asked whether ES Chapter 2 [APP-040] is the source of overarching assumptions for assessment of construction noise. Mr Fox confirmed that this is the case and the embedded mitigation section summarises some of the key mitigation measures which were reiterated in the oCEMP [APP-192]. Mr Fox confirmed that the construction noise chapter should be read alongside the wider project assumptions contained within ES Chapter 2 [APP-040] of the Environmental Statement and the oCEMP [APP-192]. <u>Cumulative Construction Noise</u> The ExA queried whether cumulative construction noise effects had been assessed alongside other developments or infrastructure projects which may be under construction during a similar period. Mr Hiller noted that the cumulative noise assessment is in Section 11.14 and Table 11.23 of ES Chapter 11: Noise and Vibration [APP-049] which address cumulative effects. This also looks at what other sites are permitted or in development and takes a precautionary approach.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Fox noted that this assessment should be seen in the context that individual developments would be subject to their own construction controls and Best Practicable Means environmental management measures, as required by law. <u>Control Through the CEMP [APP-192] and associated requirement 12 (DCO)</u> The ExA sought clarification regarding the control documents relied upon by the Applicant and how noise mitigation measures would ultimately be secured. In particular, the ExA would like detail on topographical mitigation and how the topography of the area has been incorporated in arriving at the mitigation. In general terms, Mr Fox explained that the oCEMP [APP-192] is secured through the draft Development Consent Order and that a detailed CEMP would require approval by the relevant local planning authorities prior to construction commencing. This must be in substantial accordance with the oCEMP. The mitigation measures identified within the oCEMP act as the starting point for what would be in the detailed plan. In terms of topography, Mr Hiller confirmed that the construction noise modelling considers topography, barrier effects and screening between source and receptor. The construction sources have been assumed to be representative locations within the site at which they would be operating. Mitigation has assumed that there would be both natural and physical barriers, whether from buildings or specific erected barriers, to screen noise sources from local receptors where necessary. This is dependent on where the receptor and the works are taking place but this does not prevent mitigation being brought forward in the CEMP. Operational Noise

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA invited the Applicant to explain how it had assessed operational noise impacts and particularly the noise impacts to public rights of way and residents deriving from the tracker equipment associated with using tracker panels. Mr Hiller stated that the principal operational noise sources for the Proposed Development are associated with the Battery Energy Storage System ("BESS"), together with the Conversion Units and substations distributed throughout the Proposed Development. The results associated with noise arising from these are set it in ES Figures 11.3 to 11.5 [APP-098-100]. Figure 11.3 [APP-100] looks at the predicted operational noise levels at the height of four metres above ground level and this is to assess the impacts of noise on first floor windows. In respect of Figure 11.5 [APP-102], this models noise emissions at a height of 1.5 metres as this is representative of public rights of way users. <u>Tracker Motors</u> In respect of the trackers, Mr Fox stated that this was addressed in paragraph 11.9.42 of ES Chapter 11 [APP-049]. This sets out that the noise from trackers is a quiet noise which operates intermittently for a short duration and it is essentially tracking the movements of the sun in small increments. Mr Hiller noted the general principle of attenuation from sound source that arises from distance. In broad terms, there is usually around 3 to 6 decibels (dB) for each doubling of distance. For motor trackers it is appropriate to assess as a point source and it is therefore expected there would be a 6dB decrease per doubling of distance. As such, in the context of the Applicant's commitments to be at least 15 metres from any tracker panel, and at least 30 metres from residential properties, whilst one cannot say that something would not be audible, it would be a low level of noise.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA queried how the assessment accounted for multiple trackers moving all at once to follow the sun had been taken into account. Flowing on from that, the ExA asked the Applicant to consider if such noise would necessitate a need for a greater setback of residential receptor from the panels. Mr Fox confirmed that the Applicant would provide post-Hearing submissions on this point. Post Hearing Update: <i>This has been encapsulated in Action Point ISH1-11, and is provided below:</i> <i>The ES Noise and Vibration Chapter notes in paragraph 11.9.42 that:</i> <i>"Tracking systems operate with small motors and generate very low levels of noise. Manufacturer data for a typical tracker motor indicates a sound pressure level of approximately 50 dB(A) at 1 m. These motors usually operate intermittently for short durations and only during the daytime. Given their low output and limited operation, the noise contribution from tracking motors is considered negligible and has not been included in the noise model or assessment."</i> <i>As presented in Table 2-1 of the Design Parameters and Commitments Document [APP-217], the minimum offset between the Ground Mounted Solar PV Generating Station (Work No. 1) and a Public Right of Way (PRoW) is 15m, whilst the minimum offset to residential properties (building curtilage) is 30m.</i> <i>At a distance of 15m, the sound pressure level from a single tracker motor is estimated to be no greater than approximately 26dB(A) and would only occur for a short period each time (approximately 5 minutes) as the tilt angle is adjusted. Whilst it is possible for multiple tracker motors to operate simultaneously, the tracking solar panels are distributed across the main Solar Development Sites and the nearest tracker motor is therefore anticipated to be the dominant contributor (of all the tracker motors) to noise levels at a receptor location. Tracker motors located at greater distances would be subject to additional attenuation due to distance and, where present, screening from intervening panels and associated infrastructure. Consequently, whilst more distant tracker motors may contribute to the</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		overall sound environment, their contribution is not anticipated to increase considerably the noise level predicted for the nearest tracker motor. As noted within ES Chapter 11: Noise and Vibration [APP-049], BS 8233 Guidance on Sound Insulation and Noise Reduction for Buildings states that, for traditional external amenity areas such as gardens and patios, it is desirable that external noise levels do not exceed $50\text{dBL}_{\text{Aeq,T}}$, with an upper guideline value of $55\text{dBL}_{\text{Aeq,T}}$ considered acceptable in noisier environments. For the purpose of the assessment of impacts upon PRow users, consideration is given to these guidelines. The predicted noise level from a tracker motor at the minimum setback distance is below these guideline values and would only occur occasionally throughout daytime for a short period of time. Therefore, noise generated by tracking solar panels is not anticipated to give rise to significant effects for PRow users. At residential properties, the predicted noise level from a single tracker motor at the minimum setback distance of 30m is estimated to be no greater than 20dB(A). Whilst the tracking solar panels would generally only operate during daylight hours, limited operation may occur during the early morning period in summer months around sunrise. The representative night-time background sound level (as presented in the ES Chapter 11: Noise and Vibration [APP-049]) adopted within the assessment is $22\text{dBL}_{\text{A90,T}}$, derived from the wider night-time survey period. The predicted noise level from the tracker motors remains below this level. During the daytime period, when tracker motors would be expected to operate occasionally for the daytime, the lowest measured background sound level is $33\text{dBL}_{\text{A90,T}}$. The predicted noise level from the tracker motors is therefore substantially below the daytime background sound levels and is not anticipated to result in significant effects at residential properties. A noise modelling grid map at an example location for the project is being developed to demonstrate the anticipated noise levels for PRow users and for residential receptors. This grid noise map will be presented for Deadline 2.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<u>Tonality</u> The ExA asked the Applicant to explain the following: ▪ How residential receptors have been assessed with reference to Appendix 11.3 [APP-173]; ▪ How the characteristics of tonality, intermittency, and impulsiveness have been considered within the assessment; ▪ Whether those characteristics could materially alter the perceived impact on nearby receptors; and ▪ How the applicant proposes to introduce future controls on operational noise at residential receptors. <u>Assessment methodology</u> In respect of the sound level, Mr Hiller confirmed that 91dB mentioned at the Open Floor Hearing is from Table 2.1 of ES Appendix 11.3 [APP-173] and this is a sound <u>power</u> level. The Applicant explained that sound power levels characterise the output of a source. Those levels are inputted into three-dimensional noise mapping software which then predicts the sound levels arising from the site at all assessed receptors. These calculations are then interrogated to show the likely noise <u>impacts</u>. Mr Hiller confirmed that the assessment of operational noise has been carried out in accordance with British Standard 4142 (Methods for rating and assessing industrial and commercial sound), which is the appropriate standard for noise sources of a commercial or industrial character. This is applied to building services plant and associated equipment. He submitted that this standard is equally applicable to the sources proposed in the Proposed Development. The approach involves comparing the predicted noise from the plant against the background sound level at each receptor, assessed separately for daytime and night-time conditions. Baseline sound levels have been established from an environmental sound survey using noise loggers deployed at

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		various locations, illustrated in Figure 11.2 of the Environmental Statement [APP-099]. The tabulated impact assessments following the BS 4142 methodology are set out in ES Appendix 11.3 [APP-173]. Mr Hiller confirmed that the Applicant had assumed a 4 dB correction (tonality penalty) for the predicted sound levels from all assessed equipment. This penalty is taken from British Standard 4142 and is representative of what the standard describes as "clearly perceptible tonality" in the sound as perceived at the receptor. Intermittency in this aspect would not be relevant as the equipment will operate in a continuous manner whilst running, rather than switching rapidly on and off over short time periods. Accordingly, an intermittency correction has not been applied. Moreover, Mr Hiller explained that tonality affects people's perception of sound without necessarily producing a higher absolute noise level. By applying the tonality penalty when calculating the rating level, the assessment produces a more representative evaluation of the impact on people's perception of the noise, rather than relying solely on the raw sound level. The Applicant did not identify impulsiveness as a characteristic applicable to the operational noise sources in this development. No impulsiveness correction has been applied. <u>Future controls on Operational Noise</u> The applicant acknowledged that the level of control that can be applied to tonality cannot be fully assessed until the individual items of plant are understood in detail. For the purposes of the assessment, it has been assumed that tonality may or may not be perceptible at receptors. There are a number of sources for each of those so tonalities may or may not be perceptible as the noise from the sources may attenuate to the point where it is inaudible against the background soundscape. Mr Hiller noted that, for example attenuators could be fitted onto conversion units to reduce sound levels where needed. These can be used to control frequency content if necessary. Moreover, it has

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		also been assumed that there are acoustic barriers to enclose the whole of the BESS Compound on Solar Development Site 2 and to provide screening within the BESS Compound to limit noise to the receptors where this is appropriate. The Applicant will also consider orientation of equipment so that noise emitting elements face generally away from receptors, using self-screening and source directivity to minimise impacts where sources have directional characteristics. Mr Hiller confirmed that this mitigation will be worked up in detail once the particular plan has been confirmed, as part of the detailed design stage process. Mr Fox highlighted the commitments to operational noise mitigation secured via the Design Parameters and Commitments Document [APP-207] and the oOEMP [APP-193] and noted that generally the Applicant had had positive engagement with the environmental health officer at North Yorkshire Council on noise matters. <u>Submissions from interested parties</u> A query was raised as to whether there is a minimum threshold of noise that nearby residents would simply be required to accept or whether the aim of the proposed mitigation is to eliminate noise from human perception entirely. In response, Mr Hiller stated that the approach to mitigation follows government policy, which requires noise to be mitigated and minimised as far as is practicable. He noted that BS 4142 sets out that a noise level of approximately 5 dB above background is generally considered likely to constitute an adverse impact, and 10 dB or more above background is likely to constitute a significant adverse impact, depending on context. In terms of contextualising it, the Applicant considered exceedances of background by reference to the absolute sound levels as well as levels relative to background. Subsequently, it has been concluded that no significant effects arise at any assessed property, including those closest to the site and those as far away as Monk Fryston.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Hensall Parish Council noted that inverters and transformers produce a constant hum, and that this hum increases when equipment is under load — when outputting or receiving power. Mr Hiller noted in response that all sound levels from the equipment — including the tonal hum associated with inverters and transformers — have been assessed within the noise maps contained in the Environmental Statement. The levels have been set out in the ES. To account for the humming, the 4 dB tonality penalty applied throughout the assessment has been implemented specifically to account for this characteristic. Mr Tombs further raised the issue of vibration transmitted through concrete bases, which he submitted could result in audible ground-borne vibration at receptors. Mr Hiller in response confirmed that whilst some vibration is transmitted into the ground by equipment of this nature, the vibration is at a very low level. Given the distances between the equipment and any residential properties in this development, any residual vibration transmitted through the ground would be negligible by the time it reached any residencies. Mr Fox also noted in this context that operational vibration was agreed to be scoped out of the Environmental Statement by the Planning Inspectorate at the formal Scoping stage.
4.4	Traffic and Transport	<u>Construction Traffic Routing and the Roundabout Improvement Scheme</u> The ExA asked the Applicant on the improvement works to the A63 and Monk Fryston roundabout, which were anticipated to be completed by 2028 but that delivery of these improvements may be phased. This is against a background of the Council's raising concerns about capacity issues at the roundabout. Subsequently, the Applicant was asked about whether it was more realistic to assume that alternative construction routes will be the chosen routes given the timing of other schemes.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Fox, on behalf of the Applicant, stated that there is uncertainty presently. By the time the Construction Traffic Management Plan ("CTMP") is submitted for approval, the status and availability of the roundabout scheme would be known, and measures for the management of movements or directing traffic down alternative routes would be able to be put in place. Mr Welch, Associate Director for Transport at Arup, on behalf of the Applicant also clarified that the Applicant had not relied upon the mitigation scheme at the roundabout to be in place for the purposes of the assessments. Through measures already in the Outline Construction Traffic Management Plan (CTMP) [APP-201] such as timing deliveries, the Applicant would be able to manage impacts – alternative routing then operating as a fallback. The ExA sought confirmation as to whether the Applicant's preferred route remained the route passing through the roundabout. Mr Welch confirmed that the preferred route remains the route utilising the roundabout. The mitigation measures mean that the Applicant would not use the roundabout at peak times where the capacity issues would arise, irrespective of if the junction improvement works were not in place. <u>Traffic Regulation Orders</u> Following discussion at the Hearing about North Yorkshire Council having put in place a Traffic Regulation Order (TRO) that would affect the Applicant's access route to Solar Development Site 4, and Mr Fox indicating that, if ultimately necessary, the Applicant could use the powers in article 16 of the DCO to suspend that TRO, Mr Fox confirmed that: ▪ article 16(1) is limited in scope and operates only for the purpose of the authorised development, including decommissioning activities. The power could therefore not be used to remove traffic restrictions generally but rather to disapply them insofar as they relate to Proposed Development traffic movements (i.e. such movements could not be enforced against for breach of the TRO);

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		- such suspension would be approved as part of the approval of the detailed CTMP, as all TRO matters are required to be, as is set out in the oCTMP [APP-201]; and - the practical effect of that disapplication would not necessitate the removal of any signage associated with the TRO, it is simply that Proposed Development traffic movements would be immune from enforcement. <u>Sensitivity of Receptors and Baseline Assessment</u> The ExA referred to concerns raised within Relevant Representations regarding the sensitivity of receptors located along parts of the construction traffic route for Solar Development Site 4 through West Haddlesey. The ExA noted that the Applicant had acknowledged an error within its Response to Relevant Representations – Part 1 [PDB-005] relating to the baseline HGV movements. The ExA asked whether there was an intention to update the assessments to correct the error and to address sensitivity classification. Mr Welch acknowledged that an error had been identified. However, following review of the QA process and the rest of the analysis, the Applicant's position was that correcting the error would not alter the significance conclusions reached within the Environmental Statement. The implication of the error does not change the severity of impact therefore; it is the Applicant's preference to not update the assessment. In relation to receptor sensitivity, Mr Welsh acknowledged the comments received and confirmed that the Applicant had reviewed the matter further. However, as set out in The Applicants Response to Relevant Reprs - Part 1 [PDB-005], it is not considered that any changes would alter the conclusions of the assessment due to the low level of movements travelling through the village.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Following further discussion, Mr Fox confirmed that the Applicant would update the relevant application documentation. Post Hearing Note: <i>This is encapsulated in Action Point ISH1-13 and will be presented at Deadline 2.</i> <u>Construction Routes and the CTMP</u> The ExA noted that paragraph 3.7.1 of the oCTMP [APP-201] described the assessed construction routes as “advisable routes” for construction vehicles accessing the development. The ExA considered that this is vague and queried whether the routes ultimately intended to be used had been clearly identified and assessed within the Environmental Statement. Mr Fox referred to paragraph 2.4.4 of the oCTMP [APP-201] which shows the construction routes in Figure 14.4 [APP-133] and requires that the detailed CTMP requires that the routes are followed by the construction movements. However, he also agreed that the oCTMP [APP-201] would be reviewed to ensure consistency. Post Hearing Note: <i>This is encapsulated in Action Point ISH1-14 and will be presented at Deadline 2.</i> <u>Solar Development Site 4 Access: Alternative Construction Routes</u> Following concerns raised as to why the route through West Haddlesey had been chosen over alternative routes. Mr Fox agreed to an action to do a small note on why the route through West Haddlesey has been chosen over other alternatives. Post Hearing Note: <i>This is encapsulated in Action Point ISH1-15 and the note is provided at Appendix B to this Summary.</i> <u>Solar Development Site 2 AIL Access</u>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA noted that the preferred Abnormal Indivisible Load ("AIL") route for Solar Development Site 2 is identified in Annex C of Appendix 14.1: Transport Assessment [APP-178], which indicates that a structural assessment of the Monk Fryston Railway Bridge is required before that route can be confirmed as acceptable. The ExA asked whether that assessment had been completed and, if not, whether an alternative route had been identified. Mr Gabb, Associate Director at AECOM, responded that the structural assessment is underway but the results have not been received. The ExA noted that some of the other AIL routes have an alternative route. On Solar Development Site 2, only one route has been identified which uses this route. Therefore, if the assessment has not been completed on the feasibility of the Monk Fryston bridge, has an alternative route been identified? Mr Gabb explained that the Applicant had considered alternative routes but agreed that further clarification would be provided. <i>Post Hearing Note:</i> <i>Providing more information on this point is encapsulated in Action Point ISH1-16 and will be presented at Deadline 2.</i> <u>Site Access Locations – Solar Development Site 2 and Solar Development Site 8</u> The ExA raised concerns about inconsistencies between the Access to Works Plans [AS-006] and Appendix A of the Transport Assessment [APP-178], in respect of: ▪ access to Solar Development Site 2 from Monk Fryston Lane, Fryston Common Land and the southern access with the documents appearing to show access being taken in different places with a lack of clarity as how access will be taken safely and whether improvements are required; ▪ AIL access to Solar Development Site 2 – it not being clear which access they would take, and that it has been demonstrated that this could be done safely. given the language in the Transport Assessment which also references emergency access; and ▪ the northern access to Solar Development Site 8, including whether improvements are required.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Gabb on behalf of the Applicant indicated in his responses that generally it is the Access to Works Plans that should be considered as correct, and that in respect of the AIL access to SDS2 and highlighted that there was an optionality between Access 1 and Access 3 for AIL movements and confirmed that a full AIL study for Access 3 had not yet been completed. Mr Fox indicated that this can be taken away and that the Applicant will provide a note clearly setting out the access strategy for Solar Development Site 2 and Solar Development Site 8. <i>Post Hearing Note: These matters have been encapsulated in Action Points ISH1-17, 18 and 20 and this will be presented at Deadline 2.</i> <u>Optionality in Solar Development Site 8</u> The ExA sought clarification on the three access points proposed for Solar Development Site 8 and confirmed its understanding that all three accesses would be constructed and available for use, rather than an intention to select one or two. This pertained to the optionality for the three accesses. Mr Fox noted that it is not envisaged that all three routes will handle traffic simultaneously but rather, the three routes are needed to handle the constraints arising through the lifetime of the Proposed Development. Flexibility is required because constraints arising during detailed design or construction may render one access route less suitable than anticipated. By way of example, the primary access is expected to be Access 1 via Philip Lane, but that if Access 1 cannot be used (due to constraints related to the railway line), Access 2 could be used, with Access 3 as a further fallback. It was confirmed that all three accesses may be needed at different points during the construction phase but would not all be in use simultaneously on any given day. Therefore, optionality is needed. From a practical perspective, the ExA asked whether there is an intention to construct, provide or utilise all three routes. Mr Fox confirmed that this was the case.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA noted that it had intended to direct a question to Network Rail regarding its preference as between the two access points crossing railway lines, and whether improvements to the level crossings would be required. Given that Network Rail was not in attendance, the ExA confirmed it would direct those questions to Network Rail in writing as an action point. Mr Fox noted its discussions with Network Rail and that currently, Network Rail did not require the Applicant to make improvements to the level crossings but this position would be confirmed by Network Rail.
4.5 - Ecology and Biodiversity		
4.5 (a)	Surveys and methodology	<u>Functionally Linked land.</u> The ExA invited the Applicant to explain and justify its approach to this element, particularly within the Cable Route Corridor, and to clarify at what stage the survey work influenced the order limits of the Cable Route Corridor. Mr Fox introduced Kim Doneo, Principal Ornithologist at Avian Ecology, to explain the Applicant's approach to data and surveying. Ms Doneo stated that the methodology aligned with Annex C of Natural England's guidance for assessing functionally linked land. The field methodology for both the Solar Development Sites and the Cable Route Corridor was agreed with Natural England through the Discretionary Advice Service, as documented in Appendix 4 of the Shadow HRA [APP-223]. Natural England's guidance generally recommends two-year survey data to account for representativeness for changes in landscape (in particular crop rotation). However, Natural England's request for two years of data was specifically in relation to Solar Development Site 1 in isolation, as set out in correspondence dated 20 November 2024. Ms Doneo stated that the one-year approach was not based on a single year of field data in isolation. Rather, the rationale was developed by reviewing field survey data collected between 2024 and March

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		2025 and presenting it to Natural England in April 2025. This began a process of introducing multiple lines of evidence and dynamically presenting the field results to Natural England through consultation and their guidance to confirm whether the survey during the one year was representative of long-term conditions and this included five years of cropping data and flooding and existing wetland bird survey data from the associated designated sites. The correspondence is contained within Appendix 4 of the Shadow HRA [APP-223]. This demonstrates an iterative process of engagement, documentation and revisions between the Applicant and Natural England. The evidence base was progressively refined to deliver a robust data package to demonstrate the representativeness of one year of surveys. Following this engagement, the Applicant provided further evidence and clarification in its Shadow HRA [APP-223]. Together with the support and evidence provided, the shadow HRA confirms that the field surveys undertaken within 2024 and 2025 were representative of the long-term conditions and the information was sufficient to inform the assessment and conclusions of no adverse effects on the integrity of the SPAs and RAMSAR Site. This has been agreed by NE. Mr Fox clarified that, in relation to the Cable Route corridor and specifically birds, the baseline summary of the results is reported in the Shadow HRA [APP-223] and concludes at paragraph 6.2.3.5 that the Cable Route Corridor comprising temporary land use however any exceedances are spread out across the area due to its large-scale densities of qualifying features. Where the assessment is done in section 7 and 8, standard mitigation measures and seasonal restrictions will manage impacts. There is not a loss of FLL for the Cable Route Corridor given the nature of these works and therefore, there was no change to the Order limits derived from surveys for non-breeding birds in the Cable Route Corridor specifically. Ms Doneo supplemented that NE was comfortable with this approach in terms of restrictions that the Applicant has committed to. She noted that these are constrained to the passage period alone as surveys were not undertaken in the winter period. Therefore, they could not assess this, and NE is satisfied with this approach.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<u>Bird Mitigation Area — Sizing and Justification</u> The ExA noted that it had visited the Bird Mitigation Area (BMA) during its unaccompanied site inspection in June and invited the Applicant to address Natural England's comments that the size of the mitigation land is larger than is required for non-breeding birds, given the outputs from the habitat calculations (individually, and after application of the multiplier). Ms Doneo stated that with regards to the scale of the BMA, taking account of the data and applying buffer multipliers, 30 ha was required. However, the BMA was not designed solely to support non-breeding bird species: it is also designed to account for ground-nesting birds, which require large open spaces. Accordingly, whilst the BMA is oversized for non-breeding bird species, that additional land serves a dual mitigation purpose for both breeding and non-breeding birds through seasonal management. Mr Fox supplemented this by noting that land is under the same landownership as the rest of Solar Development Site 1. The ExA invited North Yorkshire Council to comment on the Bird Mitigation Area. The Council set out its concerns that the BMA does not adequately compensate for Solar Development Site 4, that the Outline Bird Mitigation Area Management Plan (oBMAMP) [APP-205] does not mention breeding farmland birds and that it remained unconvinced that the proposed mitigation package adequately addressed those concerns. In response, Mr Fox submitted that it was important to distinguish between mitigation and compensation. In HRA terms, which is relevant to the non-breeding birds, the BMA performs a mitigation function and is not a 'compensatory measure' for those purposes. In EIA terms (which is relevant to breeding birds), the Applicant's proposals are mitigation, not compensation. The Applicant is continuing to discuss bird mitigation provision with the Council.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Fox also went on to acknowledge that there had been a data corruption issue in relation to breeding birds. Ms Doneo supplemented this by stating that the Applicant has actively engaged with NYC since the corruption issue, by sharing the updated results and re-presented the baseline and the assessment to NYC. The Applicant's position is that this issue does not require a change in its mitigation approach, but it is discussing this with the Council. Mr Fox noted that the Applicant will be sharing a note on this with the Council, and would submit an update to the Examination on this matter at Deadline 2. Post Hearing Note: <i>The Applicant has shared the note with the NYC on 7 August 2026, and this point is encapsulated in Action Point ISH1-21 and will be presented at Deadline 2.</i> <u>Methodology and Survey Works</u> The ExA asked the applicant to confirm whether all ecological surveys remain current and representative of site conditions, and to identify any limitations, constraints, or assumptions relied upon during the survey programme. Mr Fox on behalf of the Applicant introduced Mrs Olivia McKechnie-Downing, Senior Ecological Consultant at Tyler Grange. Mrs McKechnie-Downing on behalf of the Applicant confirmed that the survey scope was agreed with North Yorkshire Council and Natural England prior to commencement of surveys, and that the vast majority of surveys were completed in accordance with guidance. In a small number of instances, the full suite of surveys was not completed for the reasons set out below. Mrs McKechnie-Downing noted that the majority of these instances pertained to the Cable Route Corridor and listed the following instances: Water voles: Within the Solar Development Sites, the standard two surveys were completed within the surveying window. Within the Cable Route Corridor, only one survey was completed at prescribed

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		crossing points between April and September. This approach was agreed with North Yorkshire Council as proportionate, given that the majority of watercourse habitat within the Cable Route Corridor is of low suitability for water voles and construction works impacting those ditches would be largely temporary and small-scale. This is a lesser impact on the species and there would also be a negligible impact during operation. Those ditches will be resurveyed prior to the construction phase as committed to in the oCEMP [APP-192]. Commuting and foraging bats: a full suite of activity surveys was completed within the Solar Development Sites. Within the Cable Route Corridor, no night-time bat walkover or static deployment surveys were completed, and this was agreed with North Yorkshire Council. This was because the Cable Route Corridor is sited to avoid important bat commuting and foraging features such as ponds, woodlands, and trees, and will utilise existing crossings in roads and ditches wherever possible to reduce impacts. Habitat surveys completed in the Cable Route Corridor confirmed that the majority of the corridor comprises arable land or hard standing, which is suboptimal commuting and foraging habitat for bats. Works along the corridor will be small-scale and temporary, with any vegetation removal reinstated within two years of the start of works. Therefore, the impacts on commuting and foraging bats are anticipated to be very low or negligible. Therefore, not completing the activity surveys was deemed proportionate. Roosting surveys for trees to be removed were completed across the entirety of the order limits, and no roosts were found in any trees surveyed. The Applicant will submit a report at Deadline 2 to demonstrate this Great Crested Newts ("GCN"): All ponds within the Solar Development Sites and within 250 m of those sites were intended to be surveyed using eDNA. However, twelve ponds were not accessed and so for assessment purposes have been assumed to be positive on a precautionary basis. There are no ponds within the Cable Route Corridor but there are 29 ponds within 250 m. Given the temporary and small-scale nature of works within the Cable Route Corridor, as the Cable Route Corridor extends over the suboptimal GCN habitat (cropland and hard standing), as the cable route will be micro-sited to avoid 250 m pond buffers wherever possible, and as the data search records show that GCN were historically (past 10 years) absent from the southern sections of the Order limits and was instead mainly

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		concentrated around Solar Development Site 1 and north of the Cable Route Corridor 1-4, eDNA surveys were not deemed to be proportionate for the ponds in 250 m of the Cable Route Corridor and any limited impacts on GCN that may be experienced during the works in the cable route corridor can be suitably mitigated through precautionary working methods detailed in the CEMP and this was agreed with NYC.
4.5 (b)	Habitats and Species	<u>Application of the Mitigation Hierarchy</u> The ExA asked the applicant to explain which habitat types would be permanently or temporarily affected by the development and how avoidance of habitat loss influenced the design process. Mrs McKechnie-Downing on behalf of the Applicant stated that the mitigation hierarchy has been fully embedded in the design process for the Proposed Development. This includes the retention of the most valuable habitats of local importance or above — including arable field margins, neutral grassland, scrub, woodland, ponds, scattered trees, and hedgerows. These are generally located at boundaries and surrounding ditches and hedgerows, and have been largely retained within the Proposed Development. The development itself extends largely over cropland habitat, of negligible ecological importance. The oCEMP [APP-192] considers the Cable Route Corridor and micro-siting is proposed to minimise or avoid impacts to important ecological features using gaps in hedgerows and ditches. Additionally, within the cable route corridor, trenchless techniques will be employed to cross watercourses to avoid impacts on high-quality aquatic habitats. Buffers are to be provided around important habitats, as outlined in the oCEMP [APP-192] and the Design Parameters and Commitments Document [APP-217]. The former includes measures and approaches to limit the likelihood of impacts around those retained habitats through damage and pollution and disturbance and such. The locations of protected species recorded from the species surveys have also been incorporated into the design of the Proposed Development — for example, the

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		locations of known badger setts and the buffers around these have been incorporated with appropriate buffers to ensure those badger setts can be retained. Where small areas of habitat removal are unavoidable (such as hedgerow removal for access or the creation of the Bird Mitigation Area), those hedgerows will be replaced with longer lengths of high-quality hedgerow elsewhere in the development, which is shown in the BNG calculation [APP-220] resulting in an overall gain of over 70% in hedgerow units. With regard to species where impacts are unavoidable, i.e. there is a crossing where water vole presence had been confirmed and there may be works required to that crossing point, the Applicant is currently in the process of agreeing a water vole mitigation strategy, to support a water vole class licence, with Natural England, so that they can provide a letter of no impediment for the Proposed Development. Therefore, there will be no unacceptable impacts on the species and they will be protected through the works. The Applicant will also be created enhanced water vole habitat for water vole within the Order limits as part of the class licence. The ExA briefly raised a question about habitat creation measures and whether these should be retained upon decommissioning rather than reverted to agricultural land. Mr Fox noted that the Applicant cannot control this, as the land will be returned to the landowners, but the Applicant offers reassurance that where these habitats have value in 60 years times then this would be protected through licencing. <u>Wildlife Corridors and Fencing</u> The ExA invited the Applicant to explain how wildlife movement through various aspects of the fencing and the Proposed Development has been considered. Mrs McKechnie-Downing on behalf of the Applicant confirmed that commuting corridors have been maintained around retained habitats, including hedgerows and ditches (linear features surrounding cropland fields). This provides permeability for

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		fauna through the proposed development along existing commuting corridors. Moreover, there are large commuting corridors incorporated into the design of the Proposed Development to allow a wide variety of species — including deer — to move through the development. This maintains connectivity and prevents fragmentation of habitats. The security fencing will be designed to allow the passage of small mammals and a wide variety of fauna (other than deer). Deer are able to commute through the wide, unfenced commuting corridors running through the centre of the development. Mr Fox added that the point pertaining to fencing is secured pursuant to the Design Parameters and Commitments document [APP-217], and the design of the fencing is subject to a DCO Requirement. <u>Aquatic ecology</u> The ExA asked whether the oCEMP [APP-192] identifies all reasonable ecological receptors and the approach to culvert and culvert replacement of watercourse crossings. The question more broadly pertains to long-term management arrangements for enhanced habitats. Mr Fox responded that the role of the oCEMP [APP-192] is to ensure that there are appropriate mitigation measures in place for all species types that could be affected – not to specifically map every individual receptor location. This is the function of the environmental assessment and baseline documents. The key point is that the management plan sets out the species which are mitigated, including lamprey (specifically near the River Ouse where specific control measures are needed). In response to long-term management, Mr Fox drew a distinction between long-term management of enhanced habitats (which falls under DCO Requirements 7 and 9, relating to the Landscape and Ecological Management Plan and biodiversity net gain) and the oCEMP [APP-192] (which is DCO Requirement 12, dealing with construction-phase management).

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Fox introduced Mr Tom House (Associate Freshwater Ecologist at Arup) to explain the position on culverts. Mr House confirmed that a range of avoidance and mitigation measures have been embedded into the design to safeguard aquatic ecology and fisheries; including using the gentlest crossing techniques to avoid physical disturbance to aquatic habitats, trenchless techniques and commitments around the design of temporary and permanent culverts to provide fish passage. This would be suitable for the hydrology and the fluvial geomorphological processes operating in these regions. Around Lamprey and the cable parts - there is a river crossing over the River Ouse which is a known migratory route for salmonids (Atlantic salmon and sea trout), lamprey, and eel. This has been identified as by far the most sensitive crossing, and there are specific cable depth commitments and agreed timing of the Horizontal Directional Drilling ("HDD") works with the Environment Agency (EA). The ExA invited comments from North Yorkshire Council and EA. William West on behalf of the Environment Agency queried whether fish passage provisions should apply for the full lifespan of the proposed culverts at Selby Dam and Habholme Dyke, rather than only during construction, and requested that the commitment to maintain a minimum cable depth of five metres below the riverbed to mitigate Electromagnetic Frequency (EMF) impacts on fish be expressly included in the Commitments Register. North Yorkshire Council also sought further detail on how the biodiversity net gain (BNG) commitment would be secured, monitored and audited over the lifetime of the development. In response, Mr Fox mentioned that the management measures within the management plan correspond to the phase in which the crossings will be put in place. In relation to the EMF commitment, the Applicant will update the commitments register in conjunction with each submission of updated management plan documents at Deadline 2 (and as is noted to do in Action Point ISH1-22). In relation to the council's point on how the BNG commitment will be managed, the Applicant welcomes comments on how the Outline Landscape and Ecological Management Plan (oLEMP) [APP195] can be worded on this as this pertains to a separate requirement in the DCO. The management of the BNG areas would not be separate from the management of the general green infrastructure, given that these areas serve multiple purposes in delivering both ecological mitigation and biodiversity net gain. Any comments or changes pertaining to this should be directed to the oLEMP as this sets out the detail

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		of the green infrastructure. Following this, the Applicant can consider cross-referencing links in the BNG requirement to ensure consistency between the two.
4.6 – Water Environment		
4.6(a)	Flood risk mapping and data	The ExA sought clarification regarding flood risk mapping, including Flood Zone 3b, including how the Applicant had taken it into account and whether the ExA had been provided with sufficient information. On behalf of the Applicant, Mr Will McBain, Director of Flood Resilience at Arup, explained that as part of the application, the 1 in 30 year event had been modelled. As was stated by the EA, this is a probabilistic definition of that floodplain but the local authority has to decide whether to use this measure or designate the functional floodplain in other ways. This is because there may be other areas which are important for flood risk management – where water has to flow or be stored in times of flooding. Often, the local authorities use the 1 in 30-year outline. This has been provided as part of the application. North Yorkshire's strategic flood risk assessment (SFRA) will be updated shortly, and this was last done before the new definition of functional floodplain was furnished in 2021. The Applicant can provide the information, but the North Yorkshire County Council's role is to say how they choose to design the floodplain when they update the SFRA. The ExA queried whether specific plans identifying Flood Zone 3b areas, vis a vis the location of Flood Zone 3b had been provided. Mr McBain clarified that such plans had not been produced, as such plans need to be produced by the Council. The 1 in 30 year event had been modelled by the Applicant, but it is for the local planning authority to designate the functional floodplain extents in their SFRA. Sian Holland on behalf of the EA stated that this is a matter which was mentioned in their relevant representation. The outline for the 1 in 30-year extent which EA recommends for usage as the outline for 3b and this is within the Flood Risk Assessment (FRA) [APP-179]. This is a conversation to be had between the Applicant and the local authority. Mr McBain raised that this is acceptable – the Applicant has provided the modelling information and now it is a matter of clarification for North Yorkshire Council on whether it is appropriate to use that as the definition of the functional floodplain,

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		for these purposes, noting that the definition will not be officially updated until North Yorkshire Council updates the SFRA. In the absence of Flood Zone 3b mapping, the ExA referred to the Applicant's statement in letter PDA-001 which states that there are no areas of Flood Zone 3b within the solar development sites of the proposed development, the sequential test has been applied during the site selection process. The ExA sought clarification on what evidence was relied upon where Flood Zone 3b mapping was not available. Mr McBain explained that the development avoids placing any new flood-vulnerable infrastructure within the 1 in 30-year modelled extent. North Yorkshire Council's current SFRA includes no functional floodplain areas within the development sites. Unless North Yorkshire Council choose to define the functional path in a different way in the SFRA update, then the statement in PDA-001 would be correct. Post Hearing Note: Action Point ISH1-24 requests for the Applicant to clarify the position on this matter further. This will be provided at Deadline 2, as allowed for by the Actions list. The ExA also referred to Figure 15.10 which has been updated to include the identification of climate change flood zones [PDA-011] and whether this would change the conclusions of the FRA [APP-179]. The ExA also asked how the site selection process considered the future risk of flooding accounting for climate change. Mr McBain explained that the Applicant has done site-specific detailed modelling which included modelling with all the relevant climate change uplifts applied. Therefore, the work has been done. The NaFRA2 mapping which was provided later in the process came out of a national data set. Whilst this does include climate change in some locations, this is a national data set which is much coarser and less detailed than the maps which have been produced in collaboration with the EA. The site-specific models included the Lower Ouse, Wharfe Washlands and the Lower River Aire Hydraulic models. These have been used to produce the modelling and the agreement with the EA indicated the

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		assumptions that should be made. The later publication of the national dataset, which does not provide climate change data in this area, implies that the NaFRA2 mapping has not made use of local models. The flood mapping for planning is updated with local models to improve the quality of the data on a continuous basis. Mr Fox added that the site selection process is done at a moment in time and it then progresses. The consideration of flood zones in that site selection process was done in the context of the modelling available at the time. What can be done is that the Applicant can do a note to suggest if any of the conclusions stated in the site selection report would change as a result of the NaFRA2 climate change outputs. However, this is in the context of retrospection. The ExA noted this and asked what data in respect of climate change flood zones informed the site selection. Mr Fox indicated that this could be explained in the same note. Post Hearing Note: Further to the above, and in response to Action Point ISH1-26, the Applicant makes the following submissions: <i>The Site Selection Assessment Report considered the Environment Agency Flood Map for Planning and other flood risk information, including the NaFRA2 surface water data, available at the time of assessment. The NaFRA2 data was published on 28 January 2025 and updated Flood Zones followed on 25 March 2025, both of which are captured in the assessment presented by the Applicant in the FRA [PP-179] and the SSAR [AS-019].</i> <i>The consolidated Flood Zones plus Climate Change NaFRA2 dataset was published later in 2025 and is a national-scale screening tool that, in some locations, provides an indication of how the combined extent of Flood Zones 2 and 3 may increase as a consequence of climate change. This new Flood Zone plus Climate Change dataset does not cover the Solar Development Sites, stating "climate change data unavailable". Additionally, application of the dataset could, at most, leave a sites flood-risk position unchanged; otherwise, it would identify an increased future constraint.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>The Applicant recognises that an alternative site could nevertheless become relatively more favourable, if site-specific information demonstrated that the Proposed Development locations within the Order Limits were materially more affected by climate change. That possibility has been addressed through the assessment of the Proposed Development and the site-specific hydraulic modelling presented in the FRA [APP-179].</i> <i>The site-specific modelling incorporates the applicable climate-change allowances according to NPPF and NPS EN-1, agreed with the Environment Agency, and demonstrates that the Proposed Development remains largely outside the modelled flood extent for the design event including climate change. The site-specific hydraulic modelling also informed the application of the sequential approach to design within the Order Limits, including the development layout and identification of appropriate mitigation measures.</i> <i>Furthermore, because the national Flood Zone plus Climate Change dataset does not provide mapped coverage for the area within the Order Limits, as reflected on [updated Figure 15.10 with revised symbology, to be submitted at Deadline 2], that mapping cannot improve the absolute flood-risk position of alternative Potential Development Areas (PDAs). Thus there is no identified basis on which its retrospective application to those sites would make an alternative materially more favourable Potential Development Area (PDA) relative to the Solar Development Sites within the Order Limits (or alter the conclusions of the Site Selection Report). Accordingly, the subsequent publication of the national screening dataset has therefore not identified a material worsening of flood risk within the Order Limits and the conclusions of the site selection process remain materially unchanged.</i> The ExA asked whether the EA had the opportunity to review the proposed development in light of the updates and whether there were any comments to make. The EA looked at NaFRA2 Updates but ultimately noted that the site-specific modelling would be preferred as it is more accurate. Therefore, NaFRA2 would not have changed how the mitigation and the design was done.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<u>Surface Water Mapping</u> The ExA asked the Applicant to explain whether they had an opportunity to review the release of the new surface water mapping available and how that interacts with the proposed Development. Mr McBain stated that the Applicant looked at the surface water flood mapping from NaFRA2. Generally, the surface water mapping is localised and shallow surface water running from the fields without there being any major water flow. It is run-off which is sitting at the surface on the site and this is running off into the fields and this is in line with the contours which is very easy to manage as part of the site drainage strategy. Therefore, the Applicant considers that the NaFRA surface 2 water maps does not present any concerns to the Applicant. The ExA sought clarification on whether the NaFRA mapping wouldn't have changed the sequential approach or the site selection had it been available earlier. Mr McBain emphasized that the conclusions would be the same as the water follows the contours and the depression. Mr Fox supplemented that the PPG is clear that so long as the surface water risk is managed then the Applicant does not need to consider the Sequential Test in respect of surface water. For completeness, the ExA would like the Flood Risk assessment to be updated in line with the latest information published. Mr McBain noted that this would not be a problem and the FRA would only need minor amendments (which would be updated to account for the wider discussions at this Hearing). There then followed discussion as to the clarity of the Applicant's ES Figures as to the risk of flooding, as the indicative locations of infrastructure appeared to block the view of that modelling. Mr Fox agreed that the Figures would be updated. Post Hearing Note: This will be provided at Deadline 2, further to Action Point ISH1-28.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
4.6(b)	Flood Risk Assessment	The ExA requested clarity, in the context of NPS requirements, on the Applicant's approach to mitigation to ensure the Proposed Development would remain safe and operational for its lifetime during times of surface water flooding. Mr McBain responded that the ES Figures, which show the results of the rainfall-runoff models developed for Solar Development Site 1 and 2, indicates how rain falling on the site would drain under gravity. It does not directly account for below ground systems, ditches and watercourses, but gives a good indication of where surface water may be a hazard. There are no significant surface water flow paths travelling through the sites, and therefore surface water hazards are relatively straightforward to mitigate. The rain falling on the substations, BESS and Integrated Conversion Units (ICUs) will be intercepted by the drainage system and this will be designed to convey the water safely away at a rate that would not increase the flood risk for others. Therefore, the risk associated with surface water is far less pervasive than the fluvial flooding risks which are being carefully mitigated as well. The ExA noted that there is no drainage which has been proposed as part of the development. Mr McBain stated that there is a drainage strategy for the site (as set out in the Outline Drainage Strategy [APP-182] but that there is a hierarchy for drainage – top of the hierarchy is to let the water infiltrate to the ground. For the parts where contamination is not a risk, the water will be encouraged to run off to the ground. Generally, the Applicant would seek to utilise existing topography to encourage runoff to drain naturally across the Solar Development Sites where appropriate. For areas where contamination is not a risk, runoff would be managed through the hierarchy of drainage outfall options and managed through surface SuDS features where appropriate. In areas where potentially contaminated runoff may arise, drainage would be managed within sealed or lined drainage systems to prevent contamination of groundwater and surface waters. This is in accordance with the Outline Drainage Strategy and in line with best practice in terms of sustainable drainage. In relation to new impermeable areas, infiltration testing would be carried out and the capacity of the soils verified to take excess surface water and design the system so that if the water doesn't soak away, it has a safe route to a watercourse. Buried features will be avoided where practical – the Applicant is looking to use features at the surface such as vegetated swales which permit infiltration and improve water quality.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA acknowledged this but pressed for clarity on what mitigation is proposed to ensure that the Proposed Development remains safe and operational for the time of the development. Mr McBain stated that this is within the Outline Drainage Strategy [APP-182] which sets out the approach and the principles to drainage. It is not provided in full detail as some ground investigation and infiltration testing would have to be carried out first. The detailed drainage strategy would then be prepared post-consent and approved in accordance with the DCO requirements. There will be measures taken to ensure that none of the new infrastructure is at risk from surface water flooding. The ExA noted that the FRA [APP-179] itself does not appear to specifically set out how the mitigation will ensure the policy tests are passed in respect of surface water, particularly given the results of the mapping. Mr McBain responded that the flood sensitive parts of the development, e.g. the Battery Energy Storage System and the converters have been designed to be set well above the fluvial flooding level which automatically means that they will be a long way above the flood surface water flooding. The solar panels themselves are also elevated. Therefore, whilst the drainage strategy is not yet complete as there is work to be done in respect of the topography and further investigation, from the flood risk assessment perspective, the effects are negligible. The only receptors potentially affected are water compatible. Mr Fox also responded and noted that the Applicant would commit to update paragraph 7.20 onwards of the FRA [APP-179], to spell out how the risks from surface water flooding will be mitigated to ensure the policy tests can be passed. Post Hearing Note: The Applicant will provide this at Deadline 2, as part of the answer to Action Point ISH1-29.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<u>Solar Panels</u> The ExA then sought confirmation on the flood risk assessment where it refers to mitigation being finished floor level set at the '300 mm freeboard above the 1% annual probability (1 in 100 year) plus climate change flood or the maximum credible scenario', and whether this applies to panels. Mr McBain confirmed that the mitigation referred to applies to the flood sensitive apparatus and advised that the position in relation to solar panels would be verified and confirmed following the hearing. The ExA noted that this commitment was not clear from the application documentation and it would be useful to understand the standard of protection that the proposed solar panels would have and how this will change across the site dependent on and across each site. Moreover, it would be useful to understand what the minimum height of the solar panels and whether this would be agreed on an individual or a block-by-block basis of the solar panels. The EA noted general concerns around the positioning of the solar panels within flood-prone areas and that this can have consequential effects on flood flow routes and queried the ability for the panels to remain operational. Mr Fox noted these points and indicated that a note on these matters would be provided post the Hearings. These submissions would confirm how the assumptions and commitments in respect of flood matters align with the overall parameters controlled by the Design Parameters and Commitments Document [APP-217]. <i>Post Hearing Note: The Applicant will provide this at Deadline 2, as part of the answer to Action Point ISH1-29, including confirmation that:</i> ▪ The minimum Solar PV panel clearance is 0.4 mAGL; ▪ Solar Development Sites 2 – 4, 6 – 8 are not affected by flooding during the design event;

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		▪ Solar Development Site 1 is the only site where flooding is predicted during the design flood event. The Applicant has recently agreed with the Environment Agency (EA) to apply the freeboard parameters to panels on Solar Development Site 1, meaning panels on Site 1 will be raised above the design flood level or relocated outside flood-affected areas. This will be reflected in the FRA [APP-179] at Deadline 2. <u>Conversion Units</u> The ExA asked the applicant to confirm that the conversion units have been identified as flood sensitive equipment and that all units would be raised above the design flood level (1% AP plus climate change) plus 300 mm freeboard or whether it would be the maximum credible scenario flood level. Mr McBain answered that they will be set above whichever is the highest of the two. The ExA asked what the maximum level flood level would be for these conversion units. Mr McBain responded that this would be the 100-year flood level plus the climate change flood level plus the 300 mm of freeboard or the maximum credible floodplain – whichever is the worst – or, if voided structures are used 600mm of freeboard would be included. Therefore, it depends on whether it has voided foundations as set out in the Design Parameters and Commitments Document [APP-217]. The ExA asked what the maximum finish floor level for the conversion units in various areas of the site would be which are at higher risk. Mr McBain responded that it requires on Solar Development Site 1 that finished floor levels are about a meter above existing levels whereas Solar Development Sites 3 and 4 require increases of approximately 300mm and 600mm respectively. This is required for the flood risk mitigation but there are various other factors which determine the final height. The ExA stated that it would be useful to have this on a site-by-site basis as to what exactly those finished floor levels would be for the conversion units. <i>Post Hearing Note: The Applicant will provide this at Deadline 2, as part of the answer to Action Point ISH1-29.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		In response to comments from the EA, Mr Fox confirmed that discussions in respect of ensuring flood resilience (e.g. clearing obstructions) and the need for any flood compensation are on-going, and that all matters would be able to be resolved pursuant to any necessary updates to the certified documents for the Proposed Development. Any updates felt able to be made following those discussions, will be made at Deadline 2.
4.6 (c)	Water Supply	<u>Water Abstractions</u> The ExA raised a question regarding whether all groundwater abstractions had been identified, further to the issues raised in Relevant Representations and the process by which groundwater abstractions had been identified Jason Fairbairn, Associate Director for Hydrogeology at Arup on behalf of the Applicant explained that the process for identifying all water abstractions involved a process of data collection. This consisted of a five-kilometre radius search around the Order Limits, requested licensed abstraction data (groundwater and surface water) from the Environment Agency, collected private water supply data from local councils and compiled additional desk-based information from British Geological Survey (BGS) geological borehole records, including records relating to Milford Lodge Cottage. This was also collated with the position of the locations to clarify where there were surface water and ground water abstractions. The Applicant further explained that field validation visits were undertaken in January 2025, May 2025 and August 2025, and through this, the receptor importance was identified. Where visits were not possible, receptors were precautionarily assessed as set out in ES Chapter 15 [APP-053] (Table 5-19). Depending on the nature of the abstraction, they would either be very high, high, medium or low receptor importance.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		A source-pathway-receptor approach was used for each abstraction, considering the nature of the activities in the scheme. In terms of the abstractions, the potential effects on quantity and quality of the water were assessed. In response to the ExA's more targeted question about whether the Applicant would commit to reviewing the list of abstractions to ensure completeness, Mr Fairbairn confirmed that the abstraction at Milford Lodge Cottage is shown on Figure 15.8 [APP-122], and that the status of site visits is recorded in Figure 15.13 [APP-127]. Mr Fairbairn confirmed that a 50-metre stand-off from the abstraction point had been incorporated as a protective measure for potential impacts on quantity, and that effects on quality were secured through various documents including the oCEMP [APP-192] for pollution, runoff and construction water management. The ExA invited comments from the EA who confirmed the Applicant's data collection approach was generally consistent with what the EA expects. However, any future permit applications would be required to consider derogation risks, particularly in relation to quantity. Mr Fairbairn acknowledged the comment pertaining to downstream consents and permits being secured at the time and acknowledged that water abstractions can be transient. Therefore, for any future permit applications, the Applicant would check at that time the contemporary datasets and ensure that the subsequent permit application be tailored appropriately. <u>Water demand during operational phase</u> The ExA queried how the Water Resource Assessment (WRA) [APP-204] had accounted for demand arising from replacement activities (such as substation replacement, conversion unit replacement and solar panel replacement — occurring up to five times over the development lifetime for the BESS and queried whether such demand could be said to be "negligible". The ExA asked whether the construction phase water demand figures in Table 37 of the WRA — excluding directional drilling and dust suppression — could serve as a conservative estimate for replacement activity demand.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Fairbairn explained that the WRA was prepared in response to the Pre-application Consultation response from the Environment Agency which identified water scarcity issues and water supply issues. This sets out the water demand for construction and operation – these have been discussed and developed in accordance with established references. These estimates have been precautionarily estimated based on the scheme understanding presently. In terms of the operation phase for example, where asset infrastructure is being replaced then the potential demand could be comparable to the relevant construction demand. He agreed that this would be taken as an action to review the WRA to further consider this matter. Post Hearing Note: <i>This has been encapsulated in Action Point ISH1-30, and the Applicant will submit the updated WRA at Deadline 2.</i> The ExA noted that the WRA identifies several project-level water supply options for the Proposed development and asked the Applicant to provide greater clarity on the strategy for supplying water to individual elements of the development throughout its lifetime — specifically, the most likely supply sources for each solar development site and cable construction compound, and to confirm whether any works outside the Order limits would be required to facilitate this access (for example, a Yorkshire Water connection). Mr Fairbairn stated that with respect to the water supply within the WRA, the Applicant sets out what the demands would be and the Applicant identifies a range of potential sources which could be required. For example, potable water via Yorkshire Water connection, groundwater or surface water abstraction; license trading of existing abstraction licences within the project footprint; capture of rainfall; and tankering. Tankering is routinely used in construction projects at certain points in the year. Therefore, the Assessment demonstrates that there is a feasible option and there may be a mix of options (i.e. a hierarchy of water use for the construction phase).

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA asked for more detail on an element-by-element basis to understand what the most likely water supply sources are for each element (i.e. for each of the solar development sites and the construction compounds). Moreover, where there is connection with Yorkshire Water then the ExA sought clarification on whether works would be needed outside of the Order Limits. Mr Fox responded to say that such a detailed breakdown at this stage would not be possible at this stage as what is identified through the WRA is the amount of water which will be needed for the Proposed Development as a whole. The Applicant is not committing to a specific source being used for a specific element as flexibility is needed to understand that at the point in time which construction happens, which of the sources is the most suitable and the most available. There is likely to be a combination of supplies. Mr Fairbairn confirmed that the Applicant had discussions with Yorkshire Water about the total quantities and Yorkshire Water did not have concerns over the quantity of water required for the Proposed Development. He also confirmed that tankering demand had been accounted for in the Applicant's transport assessments. Mr Fox confirmed that the Applicant would update the WRA to explain the position in respect of connection points within the Order limits. Post Hearing Note. <i>This has been encapsulated in Action Point ISH1-31 and the Applicant will update the WRA accordingly at Deadline 2.</i> <i>In the meantime, however, the Applicant can confirm that there are connection points to mains water pipelines within the Order limits – at Solar Development Sites 1, 3 and 4 and in CRC 2-8. Water could then be tankered from these connection points to the rest of the Site, if required. As such, no connections infrastructure would be required outside of the Order limits.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mark Corcoran for the EA expressed broad satisfaction with the WRA. The EA's preference is that non-potable sources of water are used for non-potable construction activities (such as dust suppression and wheel washing) and that over-reliance on potable supply from Yorkshire Water be avoided. The EA also wanted to clarify how the water hierarchy would be set out. Mr Fairbairn noted that the water hierarchy would prioritise non-potable water sources for non-potable purposes to minimise the use of clean potable water for the construction phases.
4.6 (d)	Fire Water Management	The ExA noted that the fire modelling assessment contained in Appendix 16.5 of the ES [APP-187] identifies five worst case fire locations, with modelling assuming a simultaneous incident at all five locations. The ExA also noted that the BESS units used in the modelling are smaller than the parameters used elsewhere in the assessment, and that up to 540 BESS units could be installed whereas the assessment only seemed to model a fire at one unit. The ExA asked how confidence could be established that the modelling reflects the true worst-case scenario particularly in relation to smoke and plume emissions. Mr Fox on behalf of the Applicant introduced Paul Gregory who is the Applicant's Battery Safety and Testing Consultant. Mr Gregory on behalf of the Applicant explained that the BESS Fire Emissions Modelling uses an illustrative design (5MWh current BESS enclosure design). It models the toxic gases and emissions as per the UK Health and Security Agency modelling requirements. The worst-case fire scenario is based on the fact that the illustrative design underwent large scale fire testing (LSFT) which is now mandated by NFPA 855 2026 to demonstrate that the fire does not propagate from one BESS enclosure to another. The BESS model which was used underwent LSFT which showed no propagation. The worst-case scenario is therefore the loss of one BESS enclosure, not multiple simultaneous units. The modelling inputs which were used for the consequence modelling included concentrations of carbon monoxide, formaldehyde, hydrogen chloride, hydrogen cyanide, hydrogen fluoride, ammonia,

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		nitrogen dioxide and particulates from potential BESS Fires. This was modelled using air quality dispersion model to determine the likely effects on human health. In addition, a high-level visibility assessment was also undertaken using particulate modelling results to assess effects on visibility to the local road network. Moreover, the modelling uses conservative assumptions, including the five worst case locations (where BESS enclosures would not be situated), worst case release height, temperatures, plume parameters, peak emission rates persisting for up to eight hours, and five years of hourly meteorological data. The ExA questioned whether those pollutant concentrations assumed 5 units on fire at the same time. Mr Gregory confirmed that this was not the case. Mr Gregory stated that LSFT was conducted on this design to demonstrate that fire does not propagate from one BESS to another, therefore the incident model is the complete burnout of a single BESS enclosure containing the emissions which were previously mentioned. Post Hearing Note: <i>In respect of the query about the size parameters in the assessment being different than the maximum parameters allowed for in the Design Parameters and Commitments Document [APP-217], the Applicant notes that the maximum parameters for the BESS are derived from ISO industry standard sizing but, the reality is that BESS designs are significantly smaller because higher cell energy density means that less space is needed to house the battery systems. The Illustrative BESS design used to inform the assessment was a 5MWh enclosure which is near the top end of current energy density for BESS designs i.e. it will create the largest fire events. The modelling represents a BESS fire as an area source because the emission occurs across the footprint of the container enclosure rather than from a discrete release point such as a vent or stack, meaning it is more appropriately characterised as a surface-based emission. This approach also allows plume rise to be represented, which is important given that a BESS fire is buoyancy-driven with significant thermal uplift. The approach is consistent with ADMS-6 guidance, which states that sources of large diameter should be modelled as area sources, as representing them as point sources can introduce non-</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>representative effects such as stack downwash. Modelling the emission as an area source therefore provides a more realistic representation of both the geometry and behaviour of the fire.</i> <i>A single BESS enclosure fire represents the credible worst-case scenario based on design standards and Large Scale Fire Testing (LSFT), which demonstrate that fire propagation between enclosures is not expected under fully tested and compliant designs. Because the illustrative current BESS design utilised for the purposes of drafting the Outline Battery Safety Management Plan (oBSMP) [APP-196] and fire emission modelling demonstrated that a fire did not propagate during LSFT then the Applicant has demonstrated that the loss of a single BESS enclosure is a credible worst-case event for the safety and risk assessment documentation submitted for the DCO.</i> <i>LSFT involves deliberately burning a complete BESS enclosure to evaluate thermal exposure, heat release rates, burn duration, maximum temperatures and, critically, the potential for fire propagation to adjacent BESS or associated equipment. The purpose of this testing is expressly to validate minimum equipment spacing and to demonstrate that cascading or multi container ignition does not occur where tested layouts and mitigation measures are implemented. These tests therefore explicitly address the type of multi-BESS fire propagation risks, including scenarios observed in real world incidents, by requiring evidence that propagation risk is controlled through design rather than reliance on emergency intervention.</i> <i>It is recognised that BESS fires can generate toxic gases and particulates; however, the assessment shows that, even under conservative worst-case conditions, predicted concentrations at publicly accessible locations are well below health-based thresholds for adverse effects. The battery state of charge (SOC) can significantly impact the volume and proportion of gases generated during BESS failure event scenarios.</i> <i>The gases produced by flaming batteries are relatively similar to those acquired from flaming combustibles such as wood, polymers and liquid fuels. Combustion of these ordinary combustibles</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>produces Carbon Dioxide (CO₂), Carbon Monoxide (CO), and a range of hydrocarbon gases. Depending on the composition of the fuel source, other gases may be produced from fires involving these fuels. For example, the production of nitrogen-containing gases, such as Nitrogen oxides (Nox) and Hydrogen Cyanide (HCN), are produced from fuels that contain nitrogen, Sulphur dioxide (SO₂) from fuels that contain sulphur, Hydrogen Chloride (HCl) from fuels that contain chlorine and Hydrogen Fluoride (HF) from fuels that contain fluorine. Lithium-Ion Batteries can generate higher levels of HF during the peak fire load of a BESS fire compared to most combustibles and uniquely during both burning and off gassing thermal runaway scenarios can generate significant volumes of Hydrogen (H₂), which is not seen in the combustion of ordinary combustibles.</i> <i>With respect to gases hazardous to health which may be generated during a BESS fire i.e. HCl, HF, HCN, CO, etc. Det Norske Veritas (DNV) have found battery fires can be viewed comparable to typical plastics fires, albeit with some exceptions. On average, the emission rate of gases from a burning battery is lower per kilogram of material compared to a plastics fire. However, during thermal runaway (the most intense phase), the peak emissions rate is generally higher, DNV worst case assumptions are derived from a range of recent BESS design LSFT.</i> <i>The Plume Study modelling uses Acute Exposure Guideline Levels (AEGLs), which are specifically developed for short-term emergency exposures. Predicted concentrations remain within AEGL-1, meaning effects would be mild, transient and reversible, if experienced at all.</i> <i>Environmental monitoring data from real-world BESS fire incidents involving a single or two BESS enclosures does not support claims of widespread contamination from BESS failure incidents. Airborne emissions are short-lived and localised; soil and water contamination risks are minimal if appropriate BESS drainage systems are integrated. The peak fire load for most current BESS designs when at 100% State of Charge (SOC) lasts for 1-3 hours and the rest of the fire, typically another 4-8 hour timeframe at a lower intensity which reduces the impact of the fire. The maximum Peak Heat Release Rate (PHRR) occurs when propagation rate of battery cells is at peak level and decays to a smaller</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>steady fire that is burning through fewer battery cells / modules and BESS system combustible materials and emitting significantly lower levels of gases and particulate matter.</i> The ExA went on to question the separation distances between each individual unit within the BESS compound. Specifically, noting that the oBSMP [APP-196] paragraph 3.122 states that adequate separation distances between enclosures and energy storage equipment have been adopted to conform to standards. The ExA sought clarification on where the distances are mentioned and whether these are secured by the DCO, particularly if they are being relied on as effectively partial mitigation to the prevent thermal runaway Mr Gregory responded that BESS designs are changing every 12 to 18 months so it is not appropriate to secure specific spacing at this point in time, the illustrative site design allows a separation distance of 2.5 m between BESS blocks and 3.5 m to BESS equipment, and 2.5 m between adjacent and back-to-back BESS enclosures (paragraph 3.1.22 – point 2 of the oBSMP [APP-196]). He went on to highlight the effect of paragraph 3.1.22 – point 4 of the oBSMP [APP-196] which sets out that the spacing for the BESS units will ultimately be informed by LSFT and rigorous site-specific consequence modelling, with the approach ultimately set out in the detailed BSMP to be approved by the Council. An independent Fire Protection Engineer specialising in BESS will validate all UL 9540A, LSFT, and / or third-party test data and site-specific consequence modelling data which has been provided. As part of these discussions, the ExA noted that it did not have before it a plan which showed that the proposed BESS compound can accommodate the maximum number and size of units proposed by the design parameters along with all associated infrastructure including noise barriers, and drainage features. Post Hearing Note: <i>This has been encapsulated in Action Point ISH1-32 and the Applicant will provide such a plan at Deadline 2. The Applicant notes that the BESS site plan referenced by Mr Gregory at the Hearing was shared with North Yorkshire Fire Rescue Service (NYFRS) and approved</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>by them before the submission of the oBSMP [APP-196], is not before the ExA, and so the Deadline 2 document will be a new document.</i> The ExA went on to ask the Applicant to explain the basis for the four-hour BESS fire duration used in the assessment, as stated in paragraph 5.49 of the Outline Drainage Strategy [APP-182], which informs the required containment storage capacity. Mr Gregory explained that section 4.3.2 of the oBSMP [APP-196] stipulates the BESS area will contain a four-hour water supply of 456,000 litres — more than 2.5 times the volume recommended by National Fire Chiefs Council (NFCC) guidance (which recommends a minimum of two hours). This also stipulates that a BESS design which may require direct North Yorkshire Fire Rescue Service (NYFRS) firefighting engagement tactics will not be selected for this facility. If firefighters are applying water or spray patterns or deploying defensive spray plates that form a water curtain between the affected enclosure and the adjacent BESS - these tactics are referred to as boundary cooling and would likely be applied intermittently in 15-minute application periods with temperature changes measured between the application periods. Section 4.3.1 of the oBSMP [APP-196] confirms that the firefighting water requirement will be fully assessed at detailed design stage, based on LSTF of the selected BESS design plus any additional fire and explosion test data provided by an independent fire protection engineer. Water storage volumes will be agreed with North Yorkshire Fire and Rescue Service. The final storage volume will be agreed accordingly, and the drainage design will be based on that agreed volume. The ExA sought further clarification on why the 4-hour threshold was selected - to which Mr Gregory stated that NFCC guidance recommends a minimum of two hours and so the Applicant is providing more than this but is doing so in the context that LSFT will demonstrate that propagation will not occur, thus minimising the firewater demand that would be required. The final drainage design would be based

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		on what the agreed volume of water is. Currently, 456,000 litres but as mentioned in the oBSMP [APP-196], this will be decided at detailed design and agreed with North Yorkshire Fire Rescue Service. Post Hearing Note on BESS LSFT and firefighting tactics: <i>Most current BESS systems are designed to safely burn out without internal fire suppression systems (to remove the risk of stranded energy in the battery systems), LSFT must be conducted to demonstrate that loss will be safely limited to one enclosure without the intervention of fire fighters. Most current BESS designs that have undergone LSFT integrate Lithium iron Phosphate (LFP) prismatic cells and have demonstrated fire propagation does not occur to other BESS enclosures at distances ranging from 15 cm – 100 cm to adjacent or back-to-back BESS enclosures with spacing of 3-3.5 m across from the next row / block of BESS enclosures.</i> <i>These current BESS designs integrate high levels of thermal insulation to prevent a fire from spreading to adjacent BESS enclosures. The insulation is designed to ensure that external heat from a BESS fire does not increase internal temperatures of adjacent BESS to critical levels i.e. temperatures are maintained <100C.</i> <i>LSFT involves deliberately burning a complete BESS enclosure to evaluate thermal exposure, heat release rates, burn duration, maximum temperatures and, critically, the potential for fire propagation to adjacent BESS or associated equipment. The purpose of this testing is expressly to validate minimum equipment spacing and to demonstrate that cascading or multi BESS enclosure ignition does not occur where tested layouts and mitigation measures are implemented. These tests therefore explicitly address the type of multi BESS fire propagation risks, including scenarios observed in real world incidents, by requiring evidence that propagation risk is controlled through design rather than reliance on emergency intervention.</i> <i>Because the illustrative current BESS design utilised for oBSMP [APP-196] drafting and fire emission modelling demonstrated that a fire did not propagate during Large Scale Fire Testing (LSFT) the Applicant has demonstrated that the loss of a single BESS enclosure is a credible worst-case event for the safety</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>and risk assessment documentation submitted for the DCO. Illustrative site design allows a separation distance of 2.5 m between BESS blocks and 3.5 m to ESS equipment, and 2.5 m between adjacent and back-to-back BESS enclosures.</i> <i>Fire hazards i.e. burning thermal runaway events in BESS systems and variations in burn out times are significantly influenced by failure scenarios, State of Charge (SOC) and battery rack configurations and materials. Cell and module propagation times during thermal runaway is driven by heat generated through internal current flow, parallel circuits, damaged circuitry and wiring, additional battery module and BESS enclosure combustibles, and internal / external module heating from vented gases and flames.</i> <i>The peak fire load for most current BESS designs when at 100% SOC lasts for 1-3 hours and the rest of the fire involving the battery systems, another 4-8 hours, would be at a lower intensity which reduces the impact of the fire. The maximum Peak Heat Release Rate (PHRR) occurs when propagation rate of battery cells is at peak level and decays to a smaller steady fire that is burning through fewer battery cells / modules and BESS system combustible materials and emitting significantly lower levels of flame and heat flux. NYFRS interventions in credible BESS failure scenarios would be limited to boundary cooling during a short-term peak fire load period. Because of the high levels of BESS internal thermal insulation which can maintain elevated temperatures for a significant timeframe, smouldering of other combustibles can continue long after the batteries have burnt out. This process does not pose any fire propagation risk or result in fire emissions that will have any significant off-site receptor impacts.</i> <i>NFCC, NFPA, FSRI (Fire Safety Research Institute) guidance, and all BESS Suppliers advise that hose streams should not be directly discharged on BESS battery systems. Claims that millions of litres of water are required to tackle a single BESS fire (as regularly referenced on internet forums) are incorrect, this type of assumption is based upon two ground monitor units being deployed each discharging 1900 LPM for 24 hours, i.e. 5,472,000 litres of water directly on battery systems within a BESS enclosure. This tactic is not necessary and could create environmental pollution risks and significantly prolong any BESS fire event.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<u>Management of Rainwater</u> The ExA asked the Applicant how rainwater would be managed during firefighting water sampling, and before any discharge to the water environment is agreed, noting the EA's concern that a delay of up to four months in obtaining an activity permit could present difficulties — and that secondary fire events or further rainfall could overwhelm the drainage system. Mr Fox noted that the oBSMP [APP-196] is being updated to reflect what the EA has asked to ensure that there is the appropriate system management to deal with that issue. The ExA asked whether the strategy still includes the discharge of fire water to the water environment. Mr McBain confirmed that an automated valve (with manual backup) routes water into the surface water runoff containment facility. This facility (lagoon) is sized to accommodate the 100-year plus climate change peak rainfall volumes together with the firefighting water volume on top. Moreover, there would be no discharge to a swale or a water course. Therefore, it is designed to ensure no discharge. The current approach is that it would be tested and that discharge would not be made until the water is safe. Mr McBain confirmed that discussions with the EA are ongoing to agree how the permitting regime for such a discharge would work in practice In response to the Environment Agency's comments pertaining to the permit regime and the discharge of firefighting water, Mr Fox noted generally that the hierarchy of activities is informed by discussions with the EA. He noted that where firefighting water is required then there would have been a fire at the BESS, and so needing to wait four months for a permit is unlikely to be a major concern. but generally acknowledged the need for a clear hierarchy of activities (i.e sampling, consultation with the EA and agreement on the appropriate approach) to be secured. The ExA asked for clarity on how firewater would be managed in the case where it needs to be retained on site whilst a permit is awaited and Mr Fox confirmed that this would be provided.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Post Hearing Note: This has now been encapsulated in Action Point ISH1-33, and the Applicant will update the oBSMP [APP-196] at Deadline 2 to account for this. <u>Attenuation Features</u> The ExA noted that Table 5.3 of the Outline Drainage Strategy [APP-182] identifies approximately 11,000 m³ of attenuation required at the BESS locations and asked the Applicant where this feature would be located and whether it could be shown on a layout plan alongside the BESS compound design. Mr Fox stated that this will be included in the plan discussed previously. However, this is in the context that the design of this would be signed off by the relevant parties pursuant to the drainage strategy and the management plan. Post-Hearing Note: This will be provided as part of the plan produced in response to Action Point ISH1-33 for Deadline 2. The ExA asked whether the Applicant can also signpost the relevant document pertaining to attenuation features at the substations. Mr McBain noted that the drainage design follows a hierarchy to ensure that the water falls in the sealed systems but for the rest of it, they will be looking to achieve infiltration which means that a lagoon will likely be limited in size and could fit within the substation layout. Post-Hearing Note: A plan showing how attenuation features at substations can be accommodated will be produced in response to Action Point ISH1-34 at Deadline 2.
4.7 - Landscape and Visual Impact		
4.7(a)	Landscape Character	Mr Fox on behalf of the Applicant noted that Jon Rooney, Associate Director of Landscape Planning and Management at Arup, was leading on this topic for the Applicant.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Post Hearing Notes: The Applicant's response to Action Point ISH1-35 which deferred some of the agenda items from the Hearing itself is provided at Appendix C to this Summary. <u>Cumulative landscape effects</u> The ExA asked the applicant to divulge how it has considered the interaction between the Proposed Development or other reasonably foreseeable developments in the wider area. This includes how the Applicant has considered both Nationally Significant Infrastructure Projects (NSIPs) or consented schemes which are close to the Proposed Development and at what point the Applicant considers that the amount of solar development might begin to fundamentally alter the character of the landscape. Mr Rooney set out that the Applicant had assessed cumulative effects on the landscape and views within section 10.14 of Chapter 10 [APP-048]. The approach follows the methodology in ES Chapter 17 [APP-055]. The shortlisting was developed with reference to the long list which is contained in ES Appendix 17.1 [APP-189] and the process of shortlisting the sites considered as part of the cumulative assessment for landscape effects has followed the advice in GLVIA3 Section 7. This states that you do not need to assess every development for cumulative effects, only those where there is likely to be some form of interaction from a landscape and visual perspective. Mr Rooney went on to say that seven projects were identified which were generally industrial/energy development – possessing a similar character that could affect the landscape in a similar way and includes Gascoigne Wood schemes; an aerobic digestion facility, a mushroom composting facility and solar and BESS scheme (noting Hillam Solar Farm was presumed as part of the future baseline, rather than cumulatively). The assessment adopts a worst-case approach assuming that all those cumulative developments would be built out and the construction of those developments would be carried out at the same time. Published landscape character assessments were used to identify the receptors and these are the same receptors which were used to assess effects of the proposed development. For consistency, the Applicant used the landscape character areas defined in the Selby landscape character assessment (2019) which now forms part of the evidence base for the emerging North Yorkshire Local Plan. The boundaries for each Solar Development Site were also used.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The assessment of potential cumulative effects associated with the development identified a shortlist of landscape character areas where there could be some cumulative landscape effects. Out of the nine-character areas within the study area, four would be affected and only one of those the Applicant determined would experience a change in the magnitude of impact and significance of effects at year 1 of operation, and that would be LCA 11. This is Sherborne Farmland, which is the location of Solar Development Sites 2, 6 and 7. There is the potential for additional effects in a scenario where those developments and the Proposed Development in year one of operations coincide, noting that this conclusion is reached without the mitigation for the proposed development established in the landscape. However, the Applicant has proposed mitigation as part of the proposed development. Once that is established by year 15 of operation, those effects would fall away. Therefore, the Applicant is not anticipating any further effects from the proposed development that could be cumulative with the other effects by year 15 of operation. <u>Mitigation</u> The ExA asked the Applicant to explain the evidence for assuming that the mitigation will perform as anticipated and how long it is expected to take before it becomes effective. Moreover, the ExA asked what the anticipated effects are if the planting does not establish as successfully as predicted. This is predicated on the continuum between year 1 and year 15 of operation and within that continuum, the Applicant considers that certain viewpoints have assessed that the effects would reduce. At what point is it that the effects are anticipated to be reduced especially where there is no indication that it occurs. Mr Rooney noted in response to the first question that it is common practice in a landscape and visual assessment to assess the worst case in year one of operation and to do this in the winter scenario. At

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		that stage, any planting would have been implemented but not effective or not established in the soil such that it could provide good landscape integration and visual screening. He noted that it is also common practice to reassess those effects at a point in the future – the standard practice is 15 years (even though this is not specified in GLVIA3). The Applicant therefore is confident that by assessing the effects of these two stages, they gain information on how effects can be mitigated. He noted that, as set out in paragraph 10.6.11 of ES Chapter 10 [APP-048], a conservative estimate has been taken of a growth rate of 0.3 metres per year and the Applicant is confident that this can be achieved through the implementation of the prescriptions and management principles in the oLEMP [APP-195]. This also includes prescriptions around how the plants would be planted in the field, the quality of the plant material, the mulching and the irrigation which would be carried out to establish those plants. The aim is to achieve establishment within the first five years following planting. This is the period where most plants fail and there is a requirement in the plan to replace any plants which die within that period. Most of the plants would be forestry transplants which establish better in the field as they are smaller plants with less well-developed root systems. The oLEMP [APP-195] also specifies larger trees to assist in providing more immediate impact. Long term management prescriptions apply throughout the lifetime of the project to ensure that the plants continue to established in the field. There are no tables in the documents to show the heights of the plants as it cannot be determined what each year will bring in terms of the climate. However, the 0.3 m growth rate is a conservative assumption based on professional experience. The ExA asked whether the Applicant can signpost the relevant documents to show the assumptions and the growth rates. Post Hearing Note: The Applicant notes Action Point ISH1-36. It will review the oLEMP [APP-195] but considers that the level of detail set out in the oLEMP in relation to planting management at this

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>stage aligns with good practice. The Applicant would also make the following comments in respect of growth rate:</i> <i>The growth rate assumption in the ES is supported by the management and replacement measures secured through the oLEMP [APP-195], which requires the establishment, monitoring and maintenance of mitigation planting. The oLEMP [APP-195] also secures the long-term management of habitats created as part of the Proposed Development, such as infilling gaps within hedgerows and maintaining hedgerow height and width in accordance with the management prescriptions set out in Table 4-1 of the oLEMP [APP-195].</i> <i>The assumed growth rate of 30cm per year represents an average rate applied to all species for the purposes of the LVIA. This is a conservative estimate having regard to published growth characteristics of common native species, many of which are capable of higher annual growth rates under favourable conditions. It aligns with experience of other projects implemented under similar growing conditions in the UK. In reality, actual growth rates would not be linear and would be expected to vary between planting types and locations and year to year.</i> <i>Plants tend to grow more slowly in the early years immediately after planting because they must first adapt to the site conditions and the root system must develop. The rate of establishment will also depend on factors such as the final species composition, soil conditions, the time of planting and weather patterns. Some species, such as Blackthorn (<i>Prunus spinosa</i>), are likely to exceed this rate, whilst others, such as Holly (<i>Ilex aquifolium</i>) may establish more slowly. It is not therefore possible to provide a definitive trajectory of height for each year, but to extrapolate it could be assumed that planting would reach a height of approximately 1.8m by year 5 of operation and 3.3m by year 10 of operation. This is based on an initial height of 0.6m, which is a common average size for nursery transplants.</i> <i>Point 8 of paragraph 10.2.9 of ES Volume 1 Chapter 10 - Landscape and Visual [APP-048] notes that the assessment assumes a viewing height of 1.7 m above ground level to simulate the eye level of a person at the top of the range set out in paragraph 6.11 of GLVIA3, to represent the worst-case scenario. This is helpful in illustrating how the proposed planting will become increasingly effective in screening views over time.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>The average growth rate applied provides a clear and proportionate basis for the assessment of residual effects at year 15 of operation, which in an industry standard norm and is reflected in guidance such as the Design Manual for Roads and Bridges (DMRB), LA 107: Landscape and Visual Effects. The management and replacement requirements secured within the oLEMP [APP-195] will ensure that the mitigation planting achieves its intended landscape and visual function.</i> <u>Winter Photomontages</u> The ExA noted the s.51 advice was issued to the applicant to seek additional winter photomontages for year 15 of operation and the ExA thinks it would be helpful to have sight of these additional photomontages. Mr Rooney acknowledged the request in the s.51 letter but noted that this does not reflect common practice and is not required by GLVIA, and that it had not been requested at the Scoping Stage by PINS or by the Council during pre-application discussions. The Applicant has provided a worst-case assessment of likely visual effects at year 1 of operation in line with best practice. Visualisations are tools to support the assessor's judgement rather than informing prescribed outputs. Reference should be made to the assessment of residual effects in summer of year 15 of operation to understand the effectiveness of the proposed mitigation and the effects that would persist following the establishment of proposed planting. Mr Fox acknowledged that notwithstanding this, it will fulfil ExA's request at Deadline 3 (and further to Action Point ISH1-38). Mr Fox also noted the following points:

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		On the interrelationships report requested by the ExA, whilst the Rule 6 Letter noted only reference to other NSIPs, the Applicant will also consider the two nearby 50 MW solar schemes referenced earlier. <i>Post Hearing Decision:</i> <i>The Applicant has noted the procedural decision on this matter made in the Rule 8 Letter and will also address the matters referenced for inclusion.</i> On a point of principle, the question of the mitigation working is fundamental to the ES assessment and there must be a level of understanding that a mitigation measure committed to is a type of mitigation measure committed to schemes across the country. Where there is doubt on the effectiveness of a mitigation measure then there would be doubt on every assessment which is done. For the visual impacts, the planting is important, but the importance is about ensuring that a robust maintenance, monitoring and management regime ensures that mitigation is achieving what it is meant to do. The starting point needs to be that standard mitigation measures would work – if this is not the starting point then every assessment would be doubted. <u>Glint and glare</u> The ExA asked about glint and glare and whether the significant effects to residential, road and rail users identified would be mitigated – and specifically what assumptions (including growth rates) informed this conclusion, noting that the effects of glint and glare exist from the point at which they are installed rather than the operation. Mr Fox answered that paragraph 4.2.3 of the oLEMP [APP-195] sets out the commitment in terms of undertaking a new assessment based on the detailed design to confirm if these effects would still arise based on the detailed design. Where that re-assessment indicates that there are remaining glint and glare effects and the Applicant is not able to work with the landowners to change existing planting then the applicant would put in place planting, prior to the installation of panels to achieve the mitigation impacts.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The indicative locations of where this might be put in place are shown on ES Figure 16.1 [APP-141] and in response to questions from the ExA, Mr Fox confirmed that: ▪ this accounted for road users, rail users, and residential receptors; ▪ the planting would mitigate effects of the panels once installed; and ▪ the planting could be provided via the installation of mature planting as part of permitted preliminary works to ensure early delivery. The ExA went on to ask that the Applicant confirm the detail of the assumptions that underpinned the efficacy of the mitigation achieving its desired aims. Mr Fox confirmed that this would be provided in writing following the Hearing. Post Hearing Note: <i>For the early planting receptors to be suitably mitigated in the case of railway and dwelling receptors, vegetation screening must match the height of the panels that are installed. On the basis of the parameters considered in the ES, this would mean a maximum height of 3.5 m for fixed panels or 4.5 m for tracking panels, which corresponds to the maximum height of each panel configuration. None of the affected receptors would look down upon the reflecting panel areas (considering the ground floor as the primary living space for dwelling receptors), and therefore if vegetation is maintained at the maximum height of the panels, this would be sufficient to screen views.</i> <i>For road receptors and based on the maximum parameters considered in the ES, the required vegetation height is lower, at 2.5 m, as screening would be along the roadside and the typical road receptor height is 1.5 m. By placing a 2.5 m screen close to the roadside, this would ensure that views towards the reflecting panels are sufficiently obscured and views should not be possible above the vegetation.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>It is anticipated that existing hedgerows can sustainably grow at a rate of 0.3 m per year, whilst newly planted hedgerows can be installed at a suitable initial height such that they would attain the required height by the point at which the relevant solar panels are installed.</i> <i>The Applicant intends to work with landowners, particularly for roadside receptors, to ensure that any new planting supplements what is existing, to enable mitigatory effects to be obtained.</i> <i>The Applicant acknowledges that, as discussed in respect to growth rates earlier in this Summary, this means that it could take a number of years for mitigation planting to grow if, for example, they were grown from seed. This is why it is important for advance planting to be able to be undertaken as part of the permitted preliminary works for the Proposed Development. More mature species could also be used so that there is a higher 'starting point' for the planting.</i> In response to general concerns raised by North Yorkshire Council about the retention of mitigation planting (specifically for landowners), Mr Fox stated that there are benefits from landscaping, but this should be considered in the context of the agricultural land that would be lost if it was retained. For example, where there are agreements with landowners and imposition of certain requirements may change their land use. The change in the nature of the land shows a fine balance between different aspects but fundamentally, it is not appropriate for the DCO to impose restrictions on the landowners who would be getting the land back as they had it.
4.7(b)	Visual Impact	<u>Setbacks</u> The ExA queried the Applicant's approach to setbacks/offsets – asking why the 30 metres is considered sufficient, particularly given the flat character of the area, and if greater distances were considered. If they were considered, then why were they discounted and if they haven't been considered, then what was the justification.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Mr Rooney on behalf of the Applicant provided context on how the visual assessment was undertaken. The visual assessment methodology is set out in detail in Appendix 10.1 of the ES [APP-167]. The assessment considers receptors individually by referring to the relevant representative viewpoints and assesses baseline conditions and effects across the three phases of the Proposed Development. The visual assessment was undertaken iteratively. It began with a large study area, which was subsequently refined through the use of Zones of Theoretical Visibility ("ZTVs") and fieldwork. This process informed the evolution of the Proposed Development presented in the application - including the application of project objectives aimed at maintaining separation from the edges of existing settlements. Consequently, relatively few residential receptors are affected by the Proposed Development. The assessment identifies 53 representative viewpoints, of which only a small number relate to residential receptors. These viewpoints were agreed with North Yorkshire Council in November last year. The visual impact assessment methodology from GLVIA3, followed by the Applicant, considers separately the sensitivity of receptors and the magnitude of impact. In assessing the sensitivity of visual receptors, a two-stage process is applied. First, the value attached to the view is considered, which is informed by the character and quality of the landscape in which the view is experienced. Secondly, the receptor's susceptibility to change is assessed. The Applicant and the assessment acknowledged that residents at home have the highest susceptibility to change. However, the assessment also identified that the landscape across which these receptors view the Proposed Development, particularly in the locations previously referred to, is of low value (noting Table 1-7 of Appendix 10.1 [APP-167]). Accordingly, when the low value attributed to the views is considered alongside the high susceptibility of the receptors, the overall sensitivity is assessed as medium. The Applicant considered this to be an important point. In relation to offsets, the Applicant submitted that careful consideration had been given to the landscape context into which the Proposed Development would be introduced.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The design of the Proposed Development has been landscape-led from the outset and consideration of the character of the landscape and how this affects people's views and visual amenity was a particular consideration in defining appropriate offsets. There are no national or local standards or guidance on what an appropriate offset should be, and this is because every scheme must be considered within its local context. The landscape within the study area is predominantly flat, with very little topographical variation. As a result, even relatively small amounts of vegetation can have a significant influence on views and sightlines. Larger offsets were considered in the early development of the scheme design but were discounted because they would not further reduce the magnitude of impact or significance of effects reported in the ES without risking also substantially reducing the area available for renewable energy generation, contrary to paragraph 5.10.26 of NPS EN-1. While some areas are highly open, due in part to the historic industrialisation of the landscape and the removal of hedgerows, there are locations where hedgerows can provide effective screening. This informed the decision to adopt a 30 m offset from the curtilage of residential properties. The distance between the rear boundary of residential gardens and project fencing shows a 30 m separation, with a further four metres between the fence line and the nearest solar panels. The Applicant submitted that this approach is appropriate and is supported by the landscape character evidence. Moreover, the approach taken is consistent with comparable projects and provides sufficient space to accommodate planting and mitigation measures. This provides functions both in relation to green infrastructure and the visual screening function. <u>Specific Viewpoints and the effects on them</u> The ExA specifically asked the Applicant to explain the approach to assessment of results for Siddle House, Milford Lodge and Milford Lodge Cottage, and to explain the differences between them. In relation to Siddle House, Mr Rooney submitted the following:

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Siddle House is a residential community receptor assessed with reference to Viewpoint 10 and is the only residential receptor identified as experiencing a significant long-term residual visual effect at year 15 of operation (moderate adverse). In that location, the property faces south towards the A63, which forms part of the middle-ground of the view from the property. Consistent with standard landscape and visual impact assessment practice, the assessment was undertaken from publicly accessible locations, in accordance with the GLVIA3 and subsequent guidance and clarifications issued by the Landscape Institute. Views from the property are generally open. There is no vegetation immediately to the south of the nearest garden boundary or along the adjacent field boundaries. However, there is substantial vegetation within the garden on the western side of the property, which screens some views across the western part of Solar Development Site 2. This existing vegetation has been considered in the assessment. The assessment identifies high and very high magnitudes of impact during the construction phase and the first year of operation. The Outline Environmental Masterplan (OEM) [PDA-003 to PDA-010] includes proposed planting along the southern boundary, and by year 15 of operation, this planting would be effective in screening the majority of views from ground level, which is the focus of landscape and visual impact assessment. The properties of Milford Lodge and Milford Lodge Cottage are located in a different landscape context. These properties are located near Solar Development Site 6, lying to the north of that site. Both of these properties overlook the site. Milford Lodge Cottage benefits from a greater degree of vegetation within its garden and domestic curtilage compared to Siddle House. While the property has views to the east and west, the assessment undertaken from Viewpoint 46 identified a greater level of foreground screening. In addition, the Proposed Development has avoided the field immediately to the east of Milford Lodge Cottage and immediately south of Milford Lodge.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		As with other residential receptors, a minimum 30-metre offset from the curtilage has been applied. The Applicant submitted that this provides sufficient space to incorporate planting sufficient to provide functions as a visual screen and green infrastructure. The Outline Environmental Masterplan [PDA-003-010] also includes proposals for planting along the northern edge of Solar Development Site 6 and further woodland planting to the rear of the garden of Milford Lodge Cottage within the Order Limits. This is to reinforce the vegetation which already exists within the property and on the boundary. There is also an area in the west which coincides with the emergency landing strip for Sherborne Airfield which would be kept open as well. Therefore, these parts of views would be kept open by virtue of leaving development out of these areas. In response to a concern raised by Stuart Stock, Mr Rooney stated that the Applicant responded that Landscape and Visual Impact Assessment (LVIA) is a professionally led, objective assessment process based on evidence. Whilst individuals may experience views differently and attach different personal values to them, the purpose of the LVIA is to assess the value of views in relation to the public - having regard to established professional guidance and the wider public context. The Applicant noted that the assessment of effects on residents at home is distinct from LVIA. In this regard, the threshold for a Residential Visual Amenity Assessment (RVAA) is recognised as being high. Mr Rooney confirmed the Applicant's view that, based on the evidence presented within the assessment, that the RVAA threshold has not been reached in the case of the Proposed Development. Mr Rooney acknowledged that the development would alter views experienced by some residents and expressed sympathy for those affected. However, it was submitted that there is no legal right to a view, and that the impacts on views had been assessed objectively and in accordance with the evidence contained within the application documentation. Mr Fox additionally noted that professional judgement has been applied in the context of methodology which is required by the GLVIA3 and this is set out in Table 1-7 of Appendix 10.1 [APP-167] which explains the values attributed to views. Fundamentally, the approach reflects best practice.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<u>Viewpoint 41</u> The ExA noted that it would appear that Solar Development Site 8 should be viewable from Viewpoint 41, but that this does not appear to be shown in the photomontages submitted with the DCO application. The ExA requested that the Applicant explain why this is the case. <i>Post Hearing Note: This is encapsulated in Action Point ISH1-37. The Applicant responds to this below, which builds on what was stated by Mr Rooney at the Hearing:</i> <i>As detailed in ES Volume 3 - Appendix 10.3 Visual Baseline and Effects [APP-169] Viewpoint 41 represents views from Hambleton Hough at an elevation of approximately 40m Above Ordnance Datum (AOD), approximately 30m above the surrounding landscape. People accessing the Hough for recreation experience broad panoramic views looking across the surrounding low-lying agricultural landscape in all directions. Views looking directly north are the most open, with substantial mature woodland obscuring parts of the view, particularly to the west. The summit of the Hough is accessible via several unmarked, steep and uneven paths, limiting its accessibility.</i> <i>Solar Development Site 2 and CRC1-4 have been described in the assessment as the most prominent parts of the Proposed Development perceptible within the view during construction.</i> <i>Given the breadth and elevation of the view, Parts of Solar Development Site 2 and Solar Development Site 8 would be perceptible in operation within the distant background in the part of the panorama, beyond and in the context of substantial intervening development, infrastructure and vegetation. Both sites are located more than 2.1 km away from Hambleton Hough at the closest point. Very small parts of Solar Development Site 6 may be just perceptible approximately 3.4 km in the distance, broken up substantially by woodland blocks. The consented Scalm Solar farm would be visible in the background approximately 1.5km further to the east at a similar distance to Solar Development Site 8, against a backdrop of mature woodland. Solar Development Site 3, 4 and 7 would be screened by intervening vegetation.</i>

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		<i>The image for VP41 included in Appendix 10.4 [AS-028] is a Landscape Institute (LI) Type 1 Annotated Viewpoint Photograph rather than a photomontage. The viewpoints which inform the LVIA, including those which are represented by photomontages, were agreed with the landscape officer of North Yorkshire Council on 17 November 2025. In accordance with the Landscape Institute's Technical Guidance Note (TGN) 06/19: Visual Representation of Development Proposals, Table 2 and paragraph 4.2.1, an LI Type 1 annotated photograph shows the existing context and indicates the position and approximate horizontal extent of the Proposed Development.</i> ES Volume 3 - Appendix 10.3 Visual Baseline and Effects [APP-169] Table 2-78 assessed the sensitivity of people visiting Hambleton Hough as high. In recognition that the construction of the Proposed Development would be visible to the north but would only occupy a relatively small part of the panoramic views and in the distance, the magnitude of impact has been assessed as low and the resulting effects as minor adverse and not significant. In operation reference is made to the tops of solar panels potentially being discernible in the far distance. Whilst it is not explicitly stated in Table 2-78, this assessment was made in consideration of Solar Development Site 2, Solar Development Site 6 and Solar Development Site 8 being present in the view. The magnitude of impact at year 1 of operation and year 15 has been assessed as very low and the significance of effects as negligible in both scenarios. On this basis, the Applicant, with the agreement of NYC, determined that LI Type 1 annotated photographs were appropriate and that LI Type 4 photomontages would not be reasonable or proportionate, in accordance with the principles set out in section 1.3 of LI TGN 06/19.
4.8	Glint and Glare Assessment	<u>Emergency strip</u> The ExA sought clarification regarding a proposed emergency landing strip referred to in Relevant Representations. The ExA noted that the illustrative layout and the modelling appeared to identify an area reserved for emergency aircraft landings and queried whether this constituted mitigation in the

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		Environmental Statement. If so, the ExA sought clarification as provision of the landing strip is secured as it is shown illustratively on the plan. Mr Fox on behalf of the Applicant introduced Malcolm Spaven, Director at Aviatica, on behalf of the Applicant. Mr Spaven clarified that the emergency landing strip is not mitigation for glint and glare. Rather, it is provided to take account of an aircraft having engine failure on take-off and therefore, in the case of a single engined aeroplane (which are the majority of aircraft types using Sherburn Airfield) they are required to find a flat, obstacle free space to make a forced landing. The location of the emergency landing strip allowed for by the Proposed Development is directly under the climb out from runway 19 which is the southerly departure heading from Sherbourn –in-Elmet airfield. This is designed so that an aircraft suffering an engine failure at a critical point on that straight ahead departure would not be required to make turns at a low level. Rather, it is simply able to make a glide approach straight ahead without turning and landing in that field in the event of an emergency Mr Fox, set out that, that essentially, it is the case that the field in which the Proposed Development is located is already able to serve that purpose. Now that the Proposed Development is building on that field, it simply needs to be ensured that sufficient space is left for aircraft to use, free from any other form of development In that context, the 'securing' of this strip comes from the limits of deviation shown on the Works Plans [AS-004]. Those plans have been drawn so that no physical development can take place within the landing strip area, as to do so would be with outwith the terms of the DCO (which controls the physical extent of works through the limits of deviation) and thus a breach of it. This means that the strip will then be able to be used. The Applicant at this stage has not made any commitment to 'design' the strip in any way. As such there are no further matters to be secured in respect of it.

#	Agent Item	Written Summary of the Applicant's Oral Submissions
		The ExA noted that Sherbourn Airfield was not present but that they submitted a Relevant Representation. Mr Fox noted that they had positive discussions recently on their concerns specifically pertaining to modelling – many of which would be assuaged by the delivery and exchange of information.
4.9	Cultural Heritage	This matter was deferred to post the Hearings. <i>Post Hearing Note: The Applicant has responded to Action Points ISH1-AP40 to ISH1-AP46 in Appendix D to this summary. Action Point ISH1-AP39 will be responded at Deadline 2 as requested by the ExA.</i>

Appendix A Replacements Position Table

Table A-1 Replacement Works

Topic	Future Baseline Position	Controls Position
Agricultural Land and Soils	The soils would already have been affected by the Proposed Development so would not be in agricultural use. No new agricultural soils receptors would therefore need to be considered at replacements stage.	The oOEMP [APP-193] provides for soil management measures to be maintained throughout the operational phase, which would apply to any replacement campaign.
Biodiversity and Ornithology	Habitats will already have been affected by the construction phase. Habitat created pursuant to the oLEMP [APP-195] would be in place. It is recognised that species are mobile so may be present when replacement activities are taking place.	The oOEMP [APP-193] requires the relevant surveys to be undertaken before replacement activities take place (e.g. bats, otter, water vole, brown hare and badger) to inform appropriate mitigation measures. This will be updated for Deadline 2 to provide for the same position for birds. The relevant seasonal restriction for birds (having been considered in the Shadow HRA [APP-223]) has been put in place at paragraph 2.2.11 of the oOEMP [APP-193]. Habitats created pursuant to the oLEMP [APP-195] could not be disturbed as that would put the Applicant in breach of the DCO.
Climate Change Resilience and Greenhouse Gas Emissions	Will be influenced by climate trends that have already been considered in the ES.	The oOEMP [APP-193] includes the mitigation measures that have sought to take account of climate trends and sought to reduce GHG emissions.
Cultural Heritage	Any impacts to archaeological assets would have already occurred at construction and it is not envisaged that any ground disturbance is required beyond that experienced during the construction phase, including for replacement activities. In addition to those built heritage assets listed within the National Heritage List of England and North Yorkshire Historic Environment	To the extent any more disturbance is required, the oOEMP [APP-193] requires a new archaeological mitigation strategy to be put in place.

Topic	Future Baseline Position	Controls Position
	Record, the baseline study for the ES utilised historic mapping and local archival material to identify additional historic structures within the Study Area. As such it is unlikely that additional built heritage receptors would be identified.	
LVIA	ES assumes that the landscape and visual effects of replacements are no greater than the construction phase with added benefit that the proposed scheme planting would be established and mature, screening views. Given that the ES assesses construction phase effects as significant for many visual receptors in the vicinity during the construction phase, the same conclusions would apply to any new receptors created within that same vicinity by the time replacements activities take place.	The oOEMP [APP-193] sets out mitigation measures to reduce effects for these less intense works, including the retention of existing vegetation and new planting. To the extent that new visual receptors are not screened by that vegetation, a similar effect to construction <u>may</u> be created, but it would not be worse than the effects reported for construction, given that these effects are already significant.
Noise and Vibration	New human noise sensitive receptors and ecological receptors may be in place on traffic routes/adjacent to the Solar Development Sites	The oOEMP [APP-193] sets out that the principles to control noise in the oCEMP [APP-192] will be followed for replacement activities. The oOEMP [APP-193] also imposes working hours restrictions. The ES sets out that replacement impacts will be no worse than those for construction, particularly given that less activities are likely to be involved. Construction concludes no likely significant effects on the basis of the measures in the oCEMP [APP-192]. As these involve Best Practice Measures (BPM), there is no reason to consider that they would not be appropriate measures for any new receptors to maintain that conclusion. The Applicant recognises, however, that new receptors might necessitate additional specific controls not accounted for in the oCEMP.

Topic	Future Baseline Position	Controls Position
		As such at Deadline 2, the oOEMP [APP-193] will be updated to require the measures to be adjusted in accordance with BPM practice to account specifically for any new noise sensitive receptors that have been created.
Socio-Economics	New socio-economic receptors could be created within the study area (albeit they would do so knowing the solar farm is present), and economic profile / accommodation availability of area could change in respect of worker impacts.	Ongoing controls in the OEMP apply for receptors which currently exist in respect of noise/amenity type issues. The types of measures proposed for those receptors would be equally applicable to any new receptors identified. The oOEMP [APP-193] will be updated at Deadline 2 to provide that measures should be suitably adjusted for any new receptors identified. The oOEMP [APP-193] will also be updated at Deadline 2 to set out a trigger point of worker numbers for when re-assessment of accommodation availability is carried out (accounting for likely worker origins), any appropriate mitigation measures developed, and that information is shared with the Council to demonstrate that effects would be no worse than construction (which is the basis of the ES assessment for this phase). Disruptions to PRoWs managed by commitments already in the oOEMP [APP-193]. Even if user numbers grew in the period before replacements, the same measures would apply.
Traffic	Future baseline traffic flows are not currently assessable and so may impact on acceptability of replacement traffic numbers and routing.	The Applicant considers that traffic numbers would be significantly reduced from the construction numbers which have been assessed to be non-significant, even accounting for growth/committed development that is known. Furthermore, the detailed OEMP includes commitments in respect of delivery hours and working hours which have deemed to be appropriate for the busier construction phase.

Topic	Future Baseline Position	Controls Position
		However, the Applicant will update the oOEMP [APP-193] at Deadline 2 to set out a trigger point of vehicle numbers for when re-assessment is carried out, any appropriate mitigation measures developed, and that information is shared with the Council to demonstrate that effects would be no worse than construction (which is the basis of the ES assessment for this phase). Above and beyond this, the oOEMP [APP-193] will be updated to require that the principles of the CTMP are also applied to any replacement campaign.
Water	It is extremely unlikely that any new water resources receptors would be created within a long-term future baseline, save potentially for new abstraction points.	The oOEMP [APP-193] puts in place the relevant pollution control measures that would apply to any new receptors. The oOEMP provides for Flood Warning and Evacuation Plan would provide relevant flood risk mitigation for any workers carrying out the replacement activity.
Arboriculture	All vegetation removals would have taken place to facilitate construction of the Proposed Scheme. Practically, the Applicant would manage vegetation at access points and on site (i.e. areas under its control), to ensure that new vegetation does not start to grow in areas that are needed for access during the operational phase.	The oOEMP [APP-193] commits replacement activities to not taking place in areas that could lead to additional impacts. To the extent that vegetation crown raising is required in the public highway to facilitate access (i.e. it grows back after being dealt with during the construction phase) this would be a repeat of the construction phase impact. The AIA has not assessed the vegetation effects from access provision during construction as significant, and so replacement traffic movements, which will require less access provision, will not be worse than this, and thus not significant.
Air Quality/Dust	New residential and ecological receptors may be in place on traffic routes/adjacent to the Solar Development Sites.	The ES (pursuant to the Construction Dust Assessment) assessed no likely significant effects from construction activities through the application of best practice measures through IAQM.

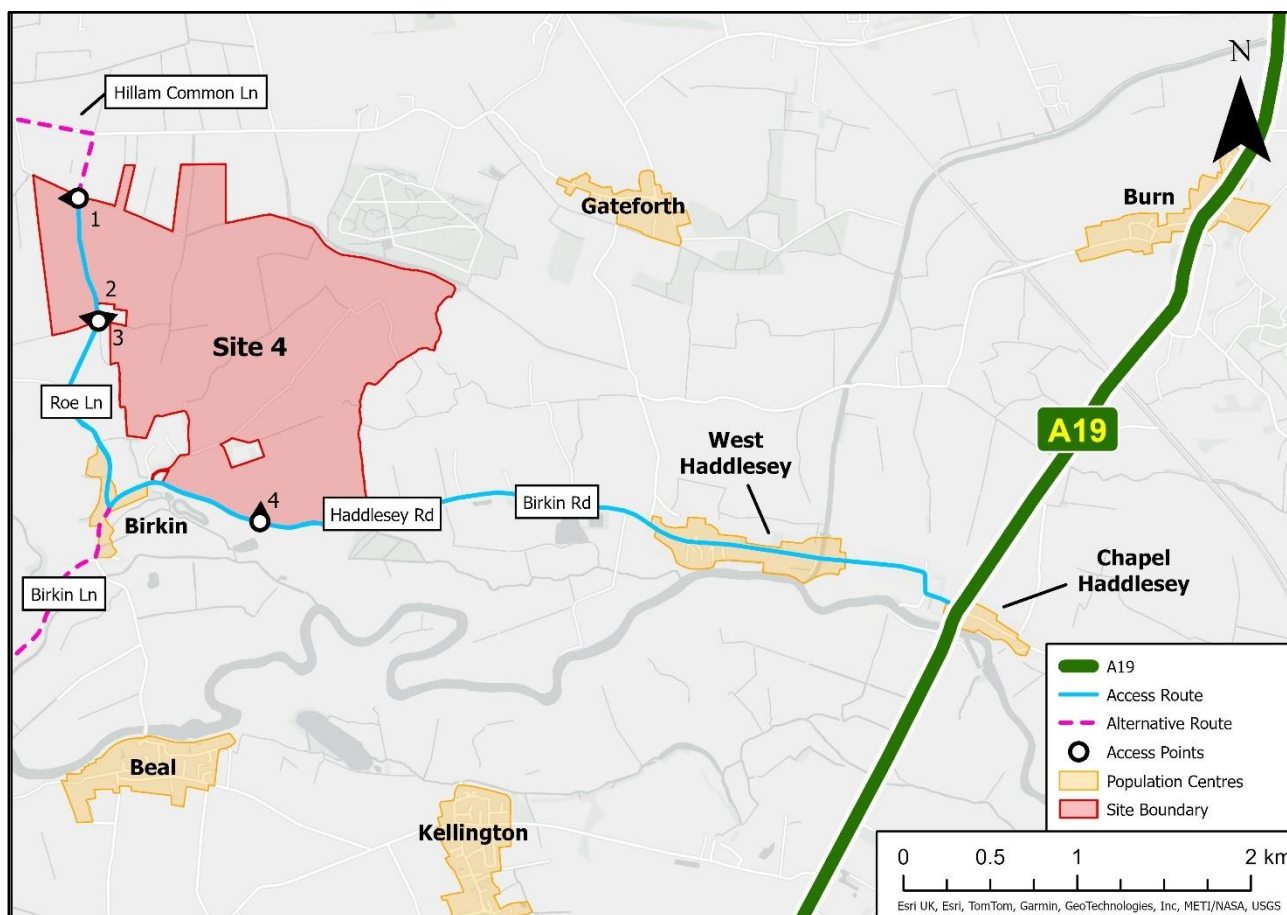
Topic	Future Baseline Position	Controls Position
		Those measures (including monitoring) have been committed to in the oOEMP [APP-193], relating to less intensive activities. Given that the assessment was based on a risk profile that already identifies human and ecological receptors as being at high risk, the appropriate measures to mitigate that risk for the construction phase would also be appropriate for any new receptors within the vicinity for the replacements phase.
Glint and Glare	New receptors may have been created, however replacement activities themselves do not create glint and glare.	n/a
BESS Fire Emissions	Not affected by the carrying out of replacement activity itself.	n/a
Waste	The assessment already considered the need for waste arisings during replacements. Considered sufficiently small scale to be able to be managed without considering market capacity.	n/a
EMFs	These effects arise from the operation of the cables, so not affected by replacement activities being carried out.	n/a
Ground Conditions	Ground investigations would be carried out before construction to inform detailed design and need for any remediation. Any such remediation would be complete prior to any replacement activities taking place. The ES (pursuant to Chapter 2 [APP-040]) confirms that no intrusive ground works are anticipated to replace Solar PV Panels or BESS. With controls in CEMP/OEMP in relation to pollution control measures, new contamination within the Solar Development Sites that could be disturbed by replacement activities would not occur.	n/a

Appendix B Technical Note: Site 4 Access Route Selection

B.1. Introduction

- B.1.1. The Examining Authority has requested that the Applicant make clear the options that have been considered for access route to Solar Development Site 4, and why the route from the A19 via West Haddlesey was selected.
- B.1.2. The purpose of this note is to outline the route selection process for construction traffic accessing Solar Development Site 4. Plate B-1 below shows the selected route via West Haddlesey that was assessed in **Appendix 14.1: Transport Assessment [APP-178]**. Alternative routes considered are detailed later in the note and shown in Plate B-2.

Plate B-1 Access routes to Solar Development Site 4 as shown in the Transport Assessment



B.2. Solar Development Site Access Strategy

- B.2.1. The construction traffic strategy for the Proposed Development seeks, where practicable, to provide multiple access points, and approach routes, to each of the solar development sites. This approach reduces reliance on a single route and allows construction traffic to be distributed across the local highway network rather than impacts concentrated on one corridor.
- B.2.2. Section 4.2 of the Transport Assessment provides a summary of the proposed vehicle access routes to the Solar Development Sites within the Proposed Development during the construction, operation and maintenance phases.
- B.2.3. In identifying the access routes, the initial step took into account the high probability that both deliveries and workers will route to each respective Solar Development Site from the nearest strategic road (the A19 or the A1(M)). These shortest routes from the strategic network to each site were then assessed to determine if there were any constraints that needed to be avoided and how impacts could be minimised. There was also engagement with North Yorkshire Council during the early access strategy discussions to determine if any routes were particularly unsuitable or should be avoided.
- B.2.4. The prescribed routes are set out and also detailed in the **Outline Construction Traffic Management Plan (oCTMP) [APP-201]**.
- B.2.5. In relation to the approach set out above, the A19 is the nearest strategic road to Solar Development Site 4, and the route via West Haddlesey is the most direct of the approaches from the A19 (shown in Plate 1).
- B.2.6. The Transport Assessment also identifies alternative construction traffic routes to Solar Development Site 4 approaching from the south-west via Birkin Lane (acknowledging that some traffic may travel via the M62) and from the north-west via Hillam Common Lane if approaching via the A1 and A63 (also shown in Plate 1). Both routes connect to Roe Lane before providing access to the site.
- B.2.7. However, restricting the assessment to approaches from the A1 and M62 was not considered sufficiently robust. Given its role as a strategic corridor, the A19 is also likely to provide access to construction trips to and from the eastern and southern parts of the site. An eastern approach would also facilitate a more balanced distribution of traffic across the wider network.
- B.2.8. The following sections discuss the alternate route options to approach Solar Development Site 4 from the A19 corridor and identify why the route via West Haddlesey emerged as an identified construction route.

B.3. Criteria assessed

- B.3.1. The route options have been considered against a set of transport and access criteria relevant to construction traffic routing. These include directness from the Strategic Road Network (SRN), suitability of the local highway network, ability to serve the relevant Solar Development Site 4 access points, interaction with

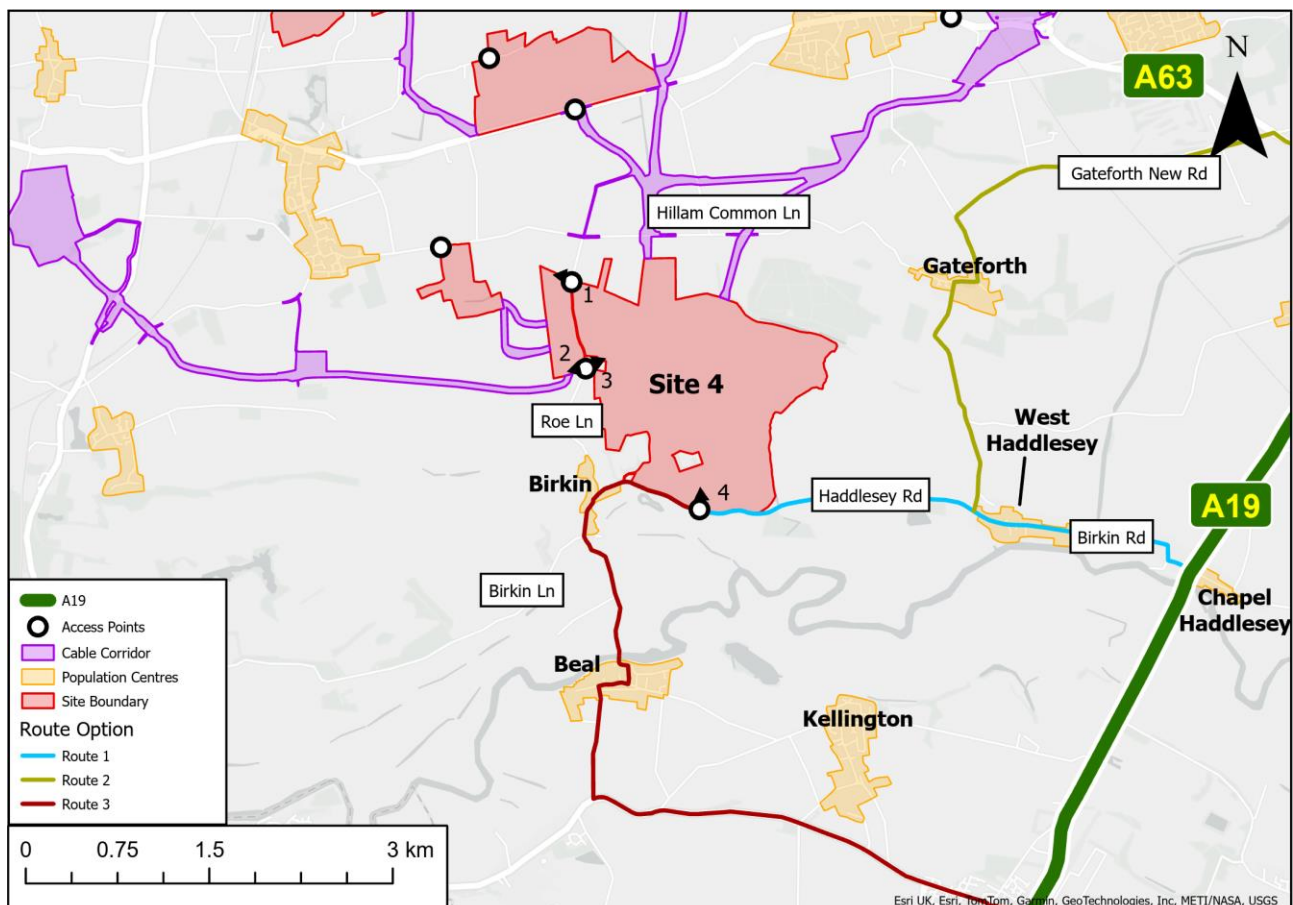
local communities and sensitive receptors, existing highway constraints and restrictions, requirement for additional highway works or traffic management, and consistency with the wider construction traffic strategy.

B.4. Routes considered

B.4.1. The routes the applicant considered to access Solar Development Site 4 from the A19 are detailed below, and shown in Plate B-2:

- 1) Route 1: via West Haddlesey (the route assessed within the **Transport Assessment [APP-178]**)
- 2) Route 2: via Gateforth
- 3) Route 3: via Beal & Birkin

Plate B-2 Routes considered to access Site 4 from the A19



B.5. Route 1: via West Haddlesey

B.5.1. Route 1 approaches Solar Development Site 4 from the A19 via West Haddlesey before continuing towards the site access point. This route provides a direct connection from the SRN to Solar Development Site 4 and avoids the

need for construction traffic to travel through additional settlements or undertake longer indirect movements before reaching the site.

- B.5.2. The route passes through West Haddlesey and the associated local sensitivities are acknowledged. This includes the receptors – including local residents and the village school, alongside traffic constraints including the narrowing of carriageway over Tankards Bridge.
- B.5.3. The access strategy and **Transport Assessment [APP-178]** considered a range of factors, including consideration of existing baseline traffic conditions. Traffic surveys undertaken in January and February 2025 recorded an average of 29 HGV movements per weekday at the count location in West Haddlesey near the junction with Pale Lane, with an average of 24 HGV movements per day across the full week. This demonstrates that the route already accommodates HGV traffic. When compared with the temporary increase associated with construction traffic, the assessment concluded that no significant impacts are anticipated, subject to appropriate mitigation measures being implemented as detailed in the **oCTMP [APP-201]**.
- B.5.4. As set out in the response to West Haddlesey Parish Council, while the route is described in the assessment as predominantly rural in character, it is acknowledged that sections pass through residential areas and in proximity to community facilities. Consequently, some sections of the route may reasonably be considered to have a higher sensitivity to changes in traffic levels.
- B.5.5. However, the route through West Haddlesey benefits from footways on at least one side of the carriageway, providing separation between pedestrians and vehicles. At Tankards Bridge, where the carriageway narrows, good forward visibility enables drivers to see and respond to approaching vehicles appropriately. These characteristics were therefore considered to provide adequate mitigation for these local constraints identified.
- B.5.6. Accordingly, even when applying assumption of higher route sensitivity, the relatively small increase in HGV movements associated with the Proposed Development would not alter the assessment findings. Applying established industry assessment guidance, the overall conclusion remains that no significant transport effects are anticipated.

B.6. Route 2: via Gateforth

- B.6.1. Route 2 would approach Solar Development Site 4 via Gateforth. Approach on the SRN could feasibly be from either the A1(M) and A63, or M62 and A19, however in both case there is a longer journey on the local highway network after leaving the SRN. At Gateforth, traffic would turn left and follow Pale Lane before joining Birkin Road after West Haddlesey and following the remainder of Route 1 to Solar Development Site 4.
- B.6.2. This option would avoid the direct approach through West Haddlesey but would instead pass through the settlement of Gateforth, and result in a less direct route to the eastern access point serving Solar Development Site 4. It would

require construction traffic to travel longer distances once off the SRN, creating a longer and less efficient movement. It was therefore not identified as the preferred route.

B.7. Route 3: via Beal and Birkin

- B.7.1. Route 3 would approach Site 4 via Beal and Birkin via the M62 and A645, and therefore does not provide a reasonable alternative approach from the A19 to the east.
- B.7.2. From the M62 and A645 the route would connect towards Roe Lane and the relevant access points. This option would be less direct than Route 1 and would require construction traffic to pass through multiple constrained settlement areas before reaching Solar Development Site 4.
- B.7.3. The additional length of route and greater interaction with communities along the Beal and Birkin corridor mean that Route 3 is less favourable from a transport perspective. It would not provide a direct connection to Solar Development Site 4 and would increase the extent of construction traffic movement through other local settlements. It was therefore not identified as the preferred route.

B.8. Preferred Route

- B.8.1. The assessment identified the A19 as the nearest strategic corridor to Solar Development Site 4, with the route via West Haddlesey being the most direct of the approaches from the A19.
- B.8.2. As outlined above, following the identification of each route from the Strategic Road Network, further assessment was made to identify constraints and to minimise the temporary impacts associated with construction traffic. On balance, the preferred option was identified as the route via West Haddlesey. This section of this note summarises the ES assessment on the route.
- B.8.3. On the route from the A19 to Solar Development Site 4 via West Haddlesey, the Transport Assessment forecasts an average increase in total traffic of approximately 22% along the route, increasing to 38% during peak construction periods. Forecast HGV movements increase by approximately 26% on average, increasing to 49% during peak construction periods.
- B.8.4. The assessment adopts a robust worst-case approach, assuming all construction traffic associated with Solar Development Site 4 accesses the site via the route through West Haddlesey. In practice, Site 4 has access points on both its southern and western boundaries and construction traffic would be expected to access the site from more than one direction from the SRN as described above. The assessment of assuming all traffic approaches from the east via the A19 is therefore a robust assessment scenario.
- B.8.5. In accordance with the IEMA Guidelines for Environmental Assessment of Road Traffic, changes in traffic flows of up to 30% are generally considered unlikely to

result in significant severance effects. Changes between 30% and 60% may give rise to low severance effects. While forecast changes in average traffic flows remain below this threshold, peak construction traffic flows may exceed 30%, indicating the potential for low levels of severance during peak construction activities. To minimise these potential severance impacts during the peak of construction, the **oCTMP [APP-201]** commits to timing restrictions to ensure movements do not coincide with school start and end times. There is also a commitment to appoint a Community Liaison Officer to lead discussions with local communities and also act as the primary point of contact should there be any queries or complaints in relation to traffic movements.

- B.8.6. Significant driver delay effects are not anticipated. The affected highway links operate well within their available capacity and the assessment therefore concluded that driver delay is not a relevant consideration for this route.
- B.8.7. The IEMA Guidelines indicate that pedestrian and cyclist amenity effects may occur where traffic flows, or the proportion of HGV traffic, increase by 100% or more. Whilst forecast traffic increases remain below this threshold, the assessment identified the potential for adverse amenity effects during peak construction activities as HGV flows would increase by up to 49%. To minimise these potential amenity impacts during the peak of construction, the **oCTMP [APP-201]** commits to the provision of signage to ensure other users are aware of construction traffic and commit to avoiding peak times to minimise the number of pedestrians and cyclists impacted by the temporary increases in traffic.
- B.8.8. Existing fear and intimidation effects are assessed as 'small' based on existing traffic flows, vehicle speeds and HGV composition. The forecast increase in construction traffic would not result in a step change in this classification and the significance of effect therefore remains unchanged.
- B.8.9. As the assessment identified the potential for severance and amenity effects during construction, mitigation measures are secured through the **oCTMP [APP-201]**. These include restrictions on construction traffic movements during sensitive periods, including the avoidance of school start and finish times associated with Chapel Haddlesey Church of England Primary School.

B.9. Summary

- B.9.1. Whilst alternative approaches from the A19 via Gateforth and Beal/Birkin were considered as part of the route assessment, they did not provide sufficient transport or environmental benefits to justify selection over the proposed route. To allow a robust assessment of potential transport impacts, a route from the A19 corridor needed to be considered and assessed.
- B.9.2. All A19 approaches require construction traffic to pass through settlements and would therefore generate comparable local effects. Consequently, the route via West Haddlesey was identified as the preferred option as impacts can be managed, noting that the assessment is based on a worst case assumption that

all traffic would use this route; in reality there will be assignment of some traffic onto the routes from other parts of the Strategic Road Network.

- B.9.3. As set out in a previous response to West Haddlesey Parish Council, it is acknowledged that parts of the route could reasonably be considered to have a higher sensitivity to traffic changes. However, even where a higher sensitivity classification is assumed, the overall conclusions remain unchanged - that there will be no significant impacts when managed through the final CTMP.
- B.9.4. The selected route is therefore considered to represent the most appropriate eastern access route for construction traffic, subject to the controls and mitigation secured through the final CTMP.

Appendix C Applicant's Response to Action Point ISH1-35

C.1. Action Point 35

Applicant to explain what it considers to be the key characteristics and special qualities of the affected landscape character areas, and specifically which of those characteristics would experience the greatest change as a result of the proposed development. Also to provide a comment on how its approach to landscape character is in line with the GLVIA3 guidance.

- C.1.1. The Applicant has considered the key characteristics of the landscape in defining the baseline and assessing the magnitude of impact and significance of effects reported in **ES Volume 1 Chapter 10 - Landscape and Visual [APP-048]**. Key characteristics are defined in paragraph 1.1.12 of **ES Volume 3 - Appendix 10.1 Landscape and Visual Assessment Methodology [APP-167]**, with reference Natural England's 'An Approach to Landscape Character Assessment'. Collectively, the key characteristics define and distinguish different areas of landscape from each other. The relative weight that each key characteristic makes to the overall character and value varies as a whole, but also within each Landscape Character Area (LCA). It is also important to note that, with reference to paragraph 5.2 of Natural England's Approach to Landscape Character Assessment, that with respect to LCA "boundaries are rarely precise and generally represent zones of transition". Therefore, land around the edges of LCAs may exhibit some characteristics of neighbouring areas.
- C.1.2. The relevant key characteristics for each Solar Development Site and each LCA that are set out in the tables within **ES Volume 3 - Appendix 10.2 Landscape Baseline and Effects [APP-168]**. The key characteristics have been considered in making judgements on the various factors which combine to determine the value attached to the landscape as part of the baseline assessment. Paragraph 1.1.41 of **ES Volume 3 - Appendix 10.1 Landscape and Visual Assessment Methodology [APP-167]** also notes that the degree to which key characteristics or features identified in the baseline would change is part of the judgements made on the size or scale of landscape impacts. The key characteristics of each landscape receptor have been considered together when combining judgements regarding the magnitude of landscape impacts, with reference to the criteria in Table 1-6 of **ES Volume 3 - Appendix 10.1 Landscape and Visual Assessment Methodology [APP-167]**.
- C.1.3. It is not common practice to consider the magnitude of impact on each key characteristic in turn. Neither the Guidelines for Landscape and Visual

Assessment, 3rd Edition (GLVIA3), nor Landscape Institute Technical Guidance Note (TGN) 01/24 Notes and Clarifications on Aspects of GLVIA3 specify that an assessment should be made specifically on the extent to which each key characteristic would be affected. On the contrary, GLVIA3 emphasises in paragraph 3.36 that “there should be more emphasis on narrative text describing the landscape and visual effects and the judgements made about their significance.” This is further supported by LI TGN 02/21 Assessing landscape value outside national designations. Paragraph 2.4.5 of this document states that “the relative importance to be attached to each indicator is likely to vary across different landscapes. Once evidence for each factor has been collated and assessed, it is important to step back and judge the overall ‘weight of evidence’ in coming to an overall judgement on landscape value.” The same principles have been applied to considering the likely impacts on the key characteristics and the landscape as a whole.

- C.1.4. The Applicant has provided a detailed and robust assessment of each landscape receptor which has considered key characteristics, clearly setting out the evidence and criteria upon which the judgements have been made.
- C.1.5. Special qualities are most associated with designated or protected landscapes, such as National Parks and National Landscapes, rather than within landscape character assessments outside of protected areas. There is no reference to special qualities in relation to the LCAs defined in the Selby Landscape Character Assessment, 2019. National Policy Statement EN-1 (para 5.10.7 to 5.10.15) sets out a hierarchical approach to considering the potential impacts on the landscape, noting that these nationally protected landscapes have the highest status of protection in relation to landscape and natural beauty. The Proposed Development has been sited to intentionally avoid any nationally designated landscapes or their setting.
- C.1.6. Paragraph 5.10.12 of NPS EN-1 notes that “outside nationally designated areas, there are landscapes that may be highly valued locally”. North Yorkshire Council has designated several Locally Important Landscape Areas (LILA). Section 10.7 of **ES Volume 1 Chapter 10 - Landscape and Visual [APP-048]** identifies the three LILAs that interface with the study area for the LVIA. The Selby District Local Landscape Designation Review, 2019 defines special qualities as short statements setting out the key defining characteristics for which the candidate LILA merits protection under local planning policy. The relevant special qualities of these LILAs have been considered in defining the baseline character of the LCAs set out in **ES Volume 3 - Appendix 10.2 Landscape Baseline and Effects [APP-168]** and in the assessment of the effects on LILAs in sections 10.9 and 10.11 of **ES Volume 1 Chapter 10 - Landscape and Visual [APP-048]**.
- C.1.7. The LVIA acknowledges that there will be some short term impacts on the Hambleton Hough LILA during construction (paragraph 10.9.7). This is due to Cable Route Corridor 1-4, which will run diagonally across the lower lying fields in the northern part of the LILA, for approximately 700 m, in a northeast to

southwest direction. However, the Solar Development Sites have been intentionally sited to avoid physical above ground infrastructure within these designations and any long term impacts resulting from construction. As noted in **ES Volume 1 Chapter 10 - Landscape and Visual [APP-048]** paragraph 10.9.9, most of the LILA designation and its key characteristics (wooded hills, panoramic views, and recreational value) will remain intact, as the Cable Route Corridor has been routed to avoid permanent impacts on these features.

- C.1.8. The majority of the LVIA study area, including all the areas covered by the Solar Development Site, avoid national or local landscape designations or their settings. This is the first consideration in applying the mitigation hierarchy. The value attached to the landscape, its susceptibility to change and overall sensitivity is low for all LCAs which host Solar Development Sites, except for Solar Development Sites 1, where the sensitivity is assessed as medium. These areas are therefore able to accommodate the Proposed Development without undue consequence for the baseline situation, by applying the substantial mitigation and enhancement measures illustrated on the **Outline Environmental Masterplan [PDA-003 to PDA-010]**.

Table C 1 Solar Development Site Landscape

Solar Development Site	LCA	Value attached to the landscape	Susceptibility to change	Sensitivity
SDS 1	LCA 2/3	Medium	Medium	Medium
SDS 2	LCA 11	Low	Low	Low
SDS 3	LCA 13	Low	Low	Low
SDS 4	LCA 13	Low	Low	Low
SDS 6	LCA 11	Low	Low	Low
SDS 7	LCA 11	Low	Low	Low
SDS 8	LCA 11	Low	Low	Low

- C.1.9. Finally, the Applicant notes that it is fully compliant with GLVIA, and that it has described how it does so for each stage of the assessment in **ES Appendix 10.1: Landscaping and Visual Assessment Methodology [APP-167]**.

Appendix D Applicant's Response to Action Points ISH1-AP40 to ISH1-AP46

D.1. Action Point 40

Provide a brief explanation of how archaeological considerations influenced the design process, and whether opportunities existed to avoid sensitive areas rather than relying on investigation and mitigation following consent. (DL1)

- D.1.1. Archaeology was a material consideration throughout the design process with sitewide geophysical survey **[APP-161, APP-162, APP-163; AS-020 – AS-027]** undertaken for the Solar Development Sites at the earliest available opportunity. The results of early surveys allowed for the exclusion areas to the north of Solar Development Site 1 and south of Solar Development Site 4 from the Order Limits based on the level of archaeological features identified. Geophysical survey results were also considered in the siting and refinement of the Cable Corridors.
- D.1.2. Within the Order Limits, the results of the geophysical survey also fed into the **Outline Environmental Masterplan [APP-016]** and resulted in areas of the Proposed Development being set aside from development (south-eastern corner of 4.14) or excluded from environmental mitigation impacts (areas at the south of Solar Development Site 1) where archaeological remains were identified, thus removing the need for intrusive surveys in these locations and preserving all archaeological remains in situ.
- D.1.3. Following archaeological trial trenching **[ES Volume 3 - Appendix 8.4 Trial Trenching Reports, APP-164]**, areas of higher value archaeological remains were identified for preservation in situ through the use of non-penetrating construction methods in Solar Development Sites 1, 2, and 4. For archaeological features identified to be of lower value or of compromised integrity due to severe truncation from agricultural activity, these were included within the Archaeological Management Strategy as areas to be subject to strip, map and sample excavation prior to construction.

D.2. Action Point 41

Applicant, HE, NYC to provide brief confirmation on the extent of agreement on archaeological matters, including mitigation, at this stage. (DL1)

- D.2.1. The Applicant has consulted with Historic England and North Yorkshire Council throughout the development of the application.

- D.2.2. Following completion of geophysical survey for the Principal Areas, consultation was undertaken with the Archaeological Officer for North Yorkshire Council (Peter Rowe) on 6/6/25 during which the approach to archaeological trial trenching was agreed. The Written Scheme of Investigation and trench plans were subsequently agreed by email (18/6/25) with trenches remotely signed off by email throughout the duration of the evaluation.
- D.2.3. Following completion of trial trenching and the majority of geophysical survey across the Cable Corridor, a meeting was held with the Archaeological Officer for North Yorkshire Council to summarise the outcomes of the evaluation and discuss the proposed approach to the **Archaeological Mitigation Strategy (AMS) [APP-200]** during which agreement was reached on the proposals, with further comments invited on the AMS once the Archaeological Officer for North Yorkshire Council had reviewed the final trial trenching and geophysical survey reports.
- D.2.4. Consultation meetings were held with Historic England in January 2025 (13/1/25; 20/1/25) to discuss the project following the receipt of their Scoping Opinion comments. Further consultation was undertaken to discuss the results of the Preliminary Environmental Information Report (PEIR), development of the ES, geophysical survey and trial trenching results (6/11/25). During this meeting the Inspector of Historic Buildings and Areas (Alex Harrison) noted that he was pleased with the Applicant's approach to the preservation of archaeological remains in situ and that a heritage-centred approach had been adopted.
- D.2.5. A request to Historic England was sent on 3/7/26 to confirm that no outstanding issues remain pertaining to the development of a Statement of Common Ground. A response has been received (by telephone) that this is in progress and no immediate issues were raised.

D.3. Action Point 42

Historic England, NYC Provide a comment on the relevant representation from Time Team of Burton Salmon, Hillam and Monk Fryston [RR-1393] that there are two areas of previously known significant archaeology, and their concerns that they might not be properly and fully investigated in a timely manner before the areas of land is developed. (DL1)

- D.3.1. Although this question is not directed to the Applicant, it has provided a response below to assist the Examination.
- D.3.2. The first area referred to in RR-1393 comprises two Romano-British Kilns within Solar Development Site 2. **ES Volume 1, Chapter 8 Cultural Heritage [APP-046]** Table 8-15 and **ES Volume 3, Appendix 8.5 Statements of Significance and Impact Assessment [APP-165]**, Table 5-1 acknowledge the presence of the two kilns within Solar Development Site 2 and identify their value which is assessed as Low.

- D.3.3. Preservation in situ is considered the gold standard of archaeological mitigation under current planning policy and best practice. A presumption of preservation in situ as the preference for archaeological remains is present throughout English legislation and planning policy, established with the Ancient Monuments and Archaeological Areas Act (1979) and re-enforced within the NPPF (211, 218) and NPS EN-1 (5.9.18).
- D.3.4. Archaeological mitigation follows a hierarchy with avoidance of impacts through design as best practice. The Proposed Development seeks to avoid unnecessary impacts to the archaeological resource wherever possible and, as such, these will be preserved in situ for future generations. The area to the southeast of Siddle House is identified in both the **Archaeological Mitigation Strategy [APP-200]** and on **Figure 8.4** [sheet 15] **[APP-088]** as an area of concrete feet or other non-ground penetrative techniques to preserve sub-surface archaeological remains in situ (in line with Historic England's Advice Note 15: Commercial Renewable Energy Development and the Historic Environment). As noted in **ES Volume 1 Chapter 8: Cultural Heritage [APP-046]** the exact locations of where archaeological protection is required will be confirmed in the final CEMP to be prepared post-consent at detailed design stage and substantially in accordance with the **oCEMP [APP-192]**.
- D.3.5. The second area references two heritage assets, MNY9959 and MNY9958, which are located c.100m from the Order Limits and will experience no impacts from the Proposed Development (**ES Volume 3 Appendix 8.2: Cultural Heritage Gazetteer [APP-160]**, **ES Volume 3 Appendix 8.5 Statements of Significance and Impact Assessments [APP-165]**).
- D.3.6. As noted above presumption of preservation in situ as the preference for archaeological remains is present throughout English planning policy.
- D.3.7. The strip, map and sample area covers the area which will be impacted by the Proposed Development only and has been sited to include potential features identified during geophysical survey. Excavation beyond this area would represent an unnecessary impact on the archaeological resource within an area which will not experience construction impacts.

D.4. Action Point 43

Comment on the extent to which the archaeological resources within the order limits is currently understood, and identify any areas where uncertainty remains. (DL1)

- D.4.1. The archaeological resource is well understood across the majority of the Order Limits. Geophysical survey (magnetometry) was undertaken across all Solar Development Sites **[APP-161, APP-162, APP-163; AS-020 – AS-027]**, followed by a scheme of targeted trial trenching to evaluate the reliability of the geophysical survey results and characterise the presence, nature and extent of

archaeological features within these areas. The results of the archaeological evaluation demonstrated a high level of confidence in the geophysical survey.

- D.4.2. The Cable Route Corridor has been subject to geophysical survey (magnetometry) **[APP-161, APP-162, APP-163; AS-020 – AS-027]**. It contains 290.38 ha of surveyable land, of which 231.04 ha has been surveyed. 23.47 ha was excluded from the survey due to its inclusion within previous archaeological investigations as part of the Monk Fryston substation development, leaving 36.87 ha un-surveyed as of August 2026.
- D.4.3. Constraints in these areas related to to current ground conditions and land access limitations.
- D.4.4. Geophysical survey has not been carried out within the Order Limits for the Scalm Lane access options or Highways Improvement Areas.
- D.4.5. The **Archaeological Mitigation Strategy** (Section 21; **[APP-200]**) sets out the Applicant's approach to mitigating outstanding risk to the archaeological resource in un-surveyed areas. Where geophysical survey cannot be carried out in advance of works within the Cable Route Corridor, these areas will be subject to archaeological monitoring.
- D.4.6. Archaeological monitoring may also be undertaken (subject to final design and agreement with the Archaeological Officer for North Yorkshire Council) where topsoil stripping is required as part of Highways Improvement Areas, Scalm Lane access to Solar Development Site 8, and on scrapes undertaken within the Bird Mitigation Area in the southern part of Solar Development Site 1.

D.5. Action Point 44

Provide confirmation as to how the contribution of setting of above ground heritage assets contributes to significance, and how this has been assessed, for those assets where views across the surrounding landscape form an important part of their heritage value. (DL1)

- D.5.1. The Applicant has followed the process set out by Historic England within Good Practice Advice (GPA) in Planning Note 3 (second edition) (2017) when considering the contribution of setting to the significance of above ground heritage assets.
- D.5.2. Setting is defined within the NPPF Glossary (Annex 2) as 'The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral'.
- D.5.3. GPA 3 elaborates on this definition and sets out a five-step process. Steps One to Three have informed the Applicant's Statements of Significance and Impacts

Assessment (**ES Volume 3 Appendix 8.5 Statements of Significance and Impact Assessments [APP-165]**). Step Four 'Explore ways to maximise enhancement and avoid or minimise harm considered throughout the design process' has been considered through design development and production of the **Outline Environmental Masterplan [PDA-003 to PDA-010]**.

- D.5.4. Where assessment utilising the GPA3 process has identified that key views across the surrounding landscape contribute to the significance of a heritage asset, changes within this setting have been considered when assessing the potential impacts of the Proposed Development.
- D.5.5. Whilst many assets within the Study Area benefit from their relationship with the wider rural landscape in such a way that it contributes to their historic value through their setting, a number of built heritage assets were identified as drawing a higher level of significance from designed or historic landscape views. These are identified and described within **ES Volume 3 - Appendix 8.5 Statements of Significance and Impact Assessment [APP-165]** and, for selected sensitive assets, discussed within **ES Volume 1, Chapter 8 Cultural Heritage [APP-046]**. Key views are particularly relevant as part of the consideration of impacts for the following assets:
- 1) **Escrick Park (NHLE:1167878), Escrick Park (estate) (MNY26310) and associated assets contained therein.** The uninterrupted views across the park and the rural land that surrounds it are considered to have been a central design point of the estate. However, as views of the Proposed Development will be glimpsed, sporadic and limited onto certain angles, it is considered that this will result in, at most, a minor adverse effect.
 - 2) **Ledston Hall and Park (NHLE: 1001221) and associated assets contained therein.** The wider rural landscape which surrounds Ledston Hall and its park (including views outward) is recognised as an element of the setting which contributes to the significance of these assets. The distance of these assets from the Proposed Development (c.3km), form and composition of the intervening landscape mean that there will be no impacts to Ledston Hall and Park.
 - 3) **Gateforth Hall (NHLE: 1132514), designed landscape (MNY31754) and associated Ha-Ha (NHLE: 3136662).** The rural landscape which surrounds the hall and its gardens is considered to make a positive contribution to the group's significance, particularly as the ha-ha encloses the house's Greek portico, which is an important design element, meant to be admired from afar. The assets are heavily screened by woodland, meaning that impacts resulting in changes to outward views would be, at most, negligible adverse, resulting in a minor adverse significance of effect.
 - 4) **Monk Fryston Hall (NHLE: 1148544).** Outward views from the house are primarily limited to the park itself, due to the wooded borders; further views out from other associated structures, such as the entrance lodge and gatepiers, are of the village of Monk Fryston, rather than its rural

surroundings. As the park is shielded by mature trees, and partially screened by the built form of Monk Fryston village, this limits intervisibility between the estate and the Proposed Development. Changes to views would be, at most, negligible adverse, resulting in a minor adverse significance of effect.

- 5) **Skipwith Hall [NHLE: 1172750] and the Church of St Helen [NHLE 1148467]**. Views outwards of the hall contribute to the asset's significance; however, the contribution is primarily made by the clearly legible relationship between the church, hall and the village. This will not be altered by the Proposed Development. Temporary construction works could result in a negligible adverse impact, resulting in a minor adverse significance of effect.
- 6) **Thorpe Hall [NHLE: 1365820]**. The hall lies in proximity to CRC 1-4. While temporary construction activities will occur within the asset's setting, views of this activity will be glimpsed only, due to the hedged boundaries which surround the asset. No permanent changes to the asset's setting will occur as a result of the Proposed Development however, temporary changes could result in a minor adverse significance of effect.
- 7) **Church of St Winifred, Monk Fryston [NHLE 1296769], Church of St Helen, Escrick [NHLE1167966], and Church of St Mary, Hambleton [NHLE: 1474381]**. In all cases, the churches occupy a position of prominence within the local landscape representing a way-marker in the landscape and a community focal point. Construction activities may be visible in views to and from these assets, however this will be temporary effects only. The Proposed Development will not impede views from the surrounding landscape to or from these assets, nor will it challenge their notable position of dominance in relation to smaller surrounding properties which contributes to their historic value. All assets returned a minor adverse significance of effect on the basis of the potential for temporary construction impacts, only.

D.5.6. Key views contributing to the heritage value of the Conservation Areas at Monk Fryston (8869), Hillam (8866), Escrick (8863;496), Ledsham and Riccall (8871) as part of their setting were also considered within **ES Volume 3 - Appendix 8.5 Statements of Significance and Impact Assessment [APP-165]** utilising the GPA3 methodology. All returned a significance effect of no greater than Minor Adverse (Ledsham Conservation Area will experience No Change) resulting from temporary construction works and, in some cases, glimpsed views heavily screened by intervening built form, existing screening and additional planting as set out the **Outline Environmental Masterplan [PDA-003 to PDA-010]**.

D.6. Action Point 45

Provide a summary explanation of how the cumulative effect of the proposed development, together with other existing or proposed energy infrastructure, has been assessed in relation to the setting and significance of heritage assets within the wider study area. (DL1)

- D.6.1. When considering the potential for cumulative effects, applications were initially reviewed based on their proximity to the Proposed Development. All applications within a 2km buffer were automatically scoped in for review, with any applications at a distance greater than 2km from the Proposed Development screened for potential interactions which could result in temporary or permanent cumulative effects.
- D.6.2. Each application was reviewed for cultural heritage assessment and comments from the Archaeological Officer and Conservation Officer for North Yorkshire Council. Where assessment and comments were not presented within the application, professional judgement was applied, based on the location, nature and scale of the development, to determine the potential for interactions with the Proposed Development. Anticipated timescales and development programmes were also considered, where available.
- D.6.3. The Cumulative Assessment within **ES Volume 1, Chapter 8 Cultural Heritage** [Section 8.14; **APP-046**] sets out those plans and projects with the potential to result in cumulative effects. Where it was considered that no potential for cumulative effects could arise, these were not included within Table 8-29, **ES Volume 1, Chapter 8 Cultural Heritage [APP-046]** but are presented within Table 17-11 (short list) of **ES Volume 1, Chapter 17 Cumulative and In-Combination Effects [APP-055]**, with the long list available in **ES Volume 3, Appendix 17.1 Long List of Developments to Inform Cumulative Assessment [APP-189]**.
- D.6.4. Those applications screened in for cumulative assessment were primarily schemes within 2km of the Solar Development Sites with the potential to introduce permanent upstanding infrastructure within the setting of heritage assets. Schemes in close proximity to the Proposed Development that could result in cumulative impacts on the buried archaeological resource were also considered. The Cable Route Corridor will not result in any permanent changes within the setting of heritage assets and as such, interactions beyond temporary construction effects and removal of buried archaeological remains were considered unlikely. Eight schemes were identified for detailed consideration set out in Table 8-29, **ES Volume 1, Chapter 8 Cultural Heritage [APP-046]**. It is not anticipated that any significant effects relating to Cultural Heritage will arise as a result of the Proposed Development.

D.7. Action Point 46

after mitigation has been applied, and where residual harm remains, provide your view on how that harm has been weighed against public benefits of the proposed development. (DL1)

- D.7.1. **Planning Statement [APP-207]** paragraphs 8.2.1 to 8.2.3, report the Applicant's position on the planning balance relating to cultural heritage after mitigation has been applied. The three paragraphs draw from **ES Volume I Chapter 8, Cultural Heritage [APP-046]**. It is reported that all potential impacts identified through baseline research and surveys, can be effectively avoided through design or can be mitigated. Mitigation measures are set out in the **Archaeological Mitigation Strategy (AMS) [APP-200]** secured by **Draft DCO** Schedule 2, Requirement 11 for archaeology **[APP-017]**.
- D.7.2. There does remain some limited potential for unidentified buried archaeological remains within un-surveyed areas of the Cable Route Corridor, and in small areas adjacent to the highway improvements areas. In response, the AMS also includes provisions to mitigate these potential impacts including (but not limited to) provisions for an archaeological watching brief, and consultation with North Yorkshire's Archaeological Advisor.
- D.7.3. While residual impacts cannot be entirely ruled out, objectively, the risk is low.
- D.7.4. Paragraph 4.1.3 of NPS EN-1 sets out a presumption in favour of granting consent for applications for energy NSIPs given the level and urgency of need for Critical National Infrastructure (CNI) solar energy infrastructure (i.e. the public benefit). This presumption applies unless any more specific and relevant policies set out in the relevant NPS' clearly indicate that consent should be refused. In response: there is no evidence of harm to identified cultural heritage assets and remains and implementation of pre-emptive measures in the AMS to address any potential harm to unidentified remains, ensures there are satisfactory safeguards in place.
- D.7.5. On balance the low risk of residual harm is given 'limited' weight and not considered to outweigh the public benefit of the Proposed Development.



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