

# Byers Gill Solar EN010139

# 8.13 Comments on Written Representations REP2-042 (Bishopton Villages Action Group) and REP2-044 (Landscape & Visual Review)

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### 1. Introduction

### 1.1. Purpose of this document

1.1.1. This document provides the response of RWE (the Applicant) to the Written Representations REP2-042 (Bishopton Villages Action Group) and REP2-044 (Landscape & Visual Review) submitted by Bishopton Villages Action Group (BVAG) at Deadline 2 of the Examination of Byers Gill Solar (the Proposed Development).

### 1.2. Approach to this document

1.2.1. This document provides the RWE response to matters raised in the BVAG representations in a tabular format. Given the length of the documents, the response is targeted to specific points of detail that RWE wishes to comment on, and these are extracted and referenced in the relevant table. Where RWE has no comment on sections of the documents, this is identified in the tables for avoidance of doubt.

### 1.3. Update on engagement with BVAG

1.3.1. Since Deadline 2, the Applicant has met with BVAG and its consultants, on 17 September 2024. This discussion primarily focused on the Statement of Common Ground (SoCG), however some matters raised in the BVAG Written Representation were also discussed. BVAG and the Applicant have agreed to a further meeting to discuss in detail aspects of the design of the Proposed Development, in an effort to work collaboratively on specific areas of the design. It is intended that an updated SoCG will be provided to the ExA at a deadline following that meeting, and once BVAG have been able to review the Applicant's response to their Written Representation.

# 2. Comments on REP2-042 (Bishopton Villages Action Group)

2.1.1. The table below provides the Applicant's response to REP2-042 only. Where the Applicant wishes to comment on a paragraph (or paragraphs), these are extracted in full in the second column to aid the reader. Where such an extract is particularly lengthy comparative to the Applicant's comment, or the comment relates to only a specific part of the paragraph, these extracts may be summarised or abridged instead. Relevant paragraphs from the BVAG Written Representation [RE2-042] are reproduced in italics, and any text to summarise points made by BVAG are included in ordinary text.

Table 2-1 Comments on BVAG Written Representation [REP2-042]

Paragraph Reference	Summary and/or extract	RWE Response
Executive Summary	Overall Executive Summary of REP2-042	The Applicant has responded the content of the Executive Summary in the table below.
Paragraphs 1.1 to 1.3		The Applicant has no comment on this section.
Paragraph 1.4	The key to understanding the proposal is to understand its scale. The Byers Gill Solar Energy proposal covers approximately 490 hectares (ha) and is expected to generate up to 180MW of electricity. As the DBC point out "The area is approximately equivalent to the total area of land covered by the eight solar farms with consent and/or under construction in the 3km Study Area i.e. the cumulative solar projects". (Para 7.3 DBC LVA) BVAG fear it could potentially expand even further.	RWE clarifies that the Order Limits represent the full extent of the Proposed Development and if granted, the Development Consent Order (DCO) would not allow for development outside of the Order Limits. There is no provision for the expansion of the Proposed Development under the terms of the dDCO [RE2-029]. It would not be possible to expand the Proposed Development without applying for and receiving grant of further consent.
Paragraphs 1.5 to 1.14		The Applicant has no comment on this section.
Paragraphs 1.15/16:	Following the Preliminary Hearing BVAG received a draft SoCG from the applicant. This was consulted on within the community and returned with comments to RWE's agents (Arup) on the Friday 9th August 2024 to allow time for	RWE acknowledge and concur with the commitment to the SoCG process with BVAG.

Paragraph Reference	Summary and/or extract	RWE Response
	them to submit the next Draft SoCG to the ExA for Deadline 1 (August 13th 2024).	
	There remain substantial areas of disagreement, and several areas under discussion. BVAG remain committed to the process of dialogue, and sharing opinions and perspectives with the applicant.	
Paragraphs 1.17 to 1.24 and Table 1		In respect of the Local Impact Reports submitted by the local authorities at Deadline 1, the Applicant refers to its Comments on LIR(s) [REP2-008].
Paragraphs 2.1 to 2.5		The Applicant has no comment on this section.
Paragraph 2.6:	The Draft DCO sets out in Schedule 2 Part 1 Requirement 5 that decommissioning must commence 'no later than 40 years following the date of final commissioning of the first phase of numbered work'. Requirement 2 (4) also says "Nothing shall prevent the undertaker and the relevant planning authority agreeing from time to time to amend the written scheme setting out the proposed phases of construction." BVAG would request clarity on potential timelines which the Draft DCO would allow from consent to decommissioning.	The references within this part of the BVAG submission relate to two very distinct and separate Requirements within the draft DCO [REP2-029]:  Requirement 2 relates specifically to phases of the construction and commissioning of the authorised development and requires a written scheme of the proposed phases to be submitted for approval by the relevant planning authority before the authorised development can commence. This Requirement only relates to commencement of the project. Subparagraph (4) of Requirement 2 allows for changes to the proposed construction phases as set out in that written scheme if required and agreed by the relevant planning authority. Subparagraph (3) of Requirement 2 also requires that, once the Proposed Development is commissioned, notice must be provided to the relevant planning authority.  Requirement 5 relates to decommissioning and restoration of the Proposed Development and is therefore relevant to the end of the project's lifespan. Subparagraph (1) of Requirement 5 requires decommissioning works to commence no later than 40 years from the commencement date (provided through Requirement 2, part 3).  The draft DCO therefore allows operation for a period of up to 40 years with decommissioning works needing to commence within that 40 year period.

Paragraph Reference	Summary and/or extract	RWE Response
		For the avoidance of doubt, the provision in Requirement 2(4) for changes to be made to the written scheme of construction phases does not allow for any extension in the 40-year operational lifespan of the Proposed Development.
Paragraph 2.7:	BVAG consider that DBC's LIR has rightly identified fundamental flaws in regard to the proposal. Because the scheme is led by grid connection availability and identifying willing landowners, the design and mitigation are secondary. In other words, this is not the best location for a solar scheme of this scale, but a solar scheme that has been designed around the only available grid connections and willing landowners.	The Applicant would disagree with the statement that design and mitigation were secondary factors influencing site selection. The approach to site selection is set out in ES Chapter 3 Alternatives and Design Iteration [APP-126], which details how factors such as grid connection, irradiance and availability of land were key in locating the site, so also was the consideration of environmental constraints and the ability to mitigate adverse effects. The Design Approach Document [AS-004] further details the approach to design and the application of the mitigation hierarchy, from the outset of the design development process. In response to further queries on site selection and design, the Applicant submitted the Energy Generation and Design Evolution Document [REP2-010] at Deadline 2.
Paragraphs 2.8 to 2.9		In respect of the Local Impact Report submitted by Darlington Borough Council at Deadline 1, the Applicant refers to its Comments on LIR(s) [REP2-008].
Paragraphs 2.10 to 2.17		The Applicant has no comment on this section.
Paragraph 2.18:	The Draft DCO Part 2.6 'Consent to transfer benefit of Order' (APP-012) provides for the Byers Gill Energy Installation to be transferred should RWE wish to do so in the future. This Article is required in order that the undertaker has commercial flexibility to transfer the benefit of the Order to a third party, subject to certain provisions. BVAG are concerned therefore that this provision allows for the further transfer of the scheme to unknown parties and would ask the ExA to consider if this Draft DCO should or can be, amended to restrict the consent to RWE should consent be granted.	Article 6 of the dDCO [REP2-029] is a standard Article included in numerous made DCOs that makes provision for the transfer of any or all of the benefit of the provision of the DCO. Although the applicant confirms that RWE intends to construct and operate the Proposed Development, Article 6 ensures flexibility to allow for the project to be constructed and operated if this position changes in any unforeseen circumstances.  The applicant clarifies that Article 6(2) requires the Secretary of State's written consent for any such transfer, except in the specific circumstances listed in sub-Article 6(4). Where the consent of the Secretary of State is not required, Article 6(5) requires the Secretary of State to be notified before any transfer or grant of benefit is made.

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		In any case where any benefit of the DCO has been transferred or granted, Article 6(9) ensures that the restrictions, liabilities and obligations associated with the transferred / granted benefits will continue to apply to the transferree.
		Article 6 is a common provision in DCOs that have been made and is subject to controls detailed in full in the draft DCO [REP2-029]. The applicant submits that it is not appropriate or necessary to restrict the consent, if granted, to RWE.
Paragraphs 2.19 to 2.21		The Applicant has no comment on this section.
Paragraph 2.22:	The Byers Gill proposal, which started under JBM, has been passed onto a foreign company, RWE, and is being delivered for shareholders as part of a global energy portfolio. The wider UK public benefits need to be balanced with the overseas private benefits.	The majority of the UK's energy generation is owned by companies headquartered outside of the UK. RWE is the largest electricity generator in the UK, and has been a trusted partner in the UK's electricity sector for over 25 years¹. RWE's focus in the UK is on expanding our renewables portfolio to strengthen our already well established position as a global leader in renewable energy. Between 2024 and 2030, RWE has an ambition to invest over £6.5 billion net in developing new green technologies and infrastructure to support the energy transition in the UK.  RWE directly employs around 3,100 people in the UK, plus many more indirectly. We own and operate every project we develop, which means we're in it for the long haul. That's why being a good neighbour and reinvesting in the communities that host our projects is one of our top priorities.  In addition to creating good paying clean energy jobs and supporting the local economy through our renewable energy projects, we are deeply committed to investing in the communities we partner with to foster growth, enhance community services, and support important community led initiatives. Over the past 25 years, RWE has invested over £38 million into community led projects to

1 https://uk.rwe.com/

Paragraph Reference	Summary and/or extract	RWE Response
		improve health and wellbeing, support local arts, culture, and heritage, and support community facilities <sup>2</sup> .
		We take our responsibility to sustainability and climate protection seriously, which is why we have committed to making all our operations climate neutral by 2040. It's also why RWE is one of the only energy companies in the world to have had our net zero plans independently verified by the Science Based Targets Initiative <sup>3</sup> . As part of this commitment, we recently agreed to accelerate the phase out of our lignite operations by 8 years, and we will end lignite-based electricity generation in 2030. Even before this decision, our climate strategy was in line with the Paris Climate Agreement, and the accelerated phase-out puts our CO2 reduction commitments in line with important goal of limiting global warming to 1.5C.  The compelling need and policy support for new sources of renewable energy is
		outlined in the Energy Generation and Design Evolution Document [REP2-010].
Paragraphs 2.23 to 2.29		The Applicant has no comment on this section. The Energy Generation and Design Evolution Document [REP2-010] sets out further information on the Applicant's approach to ensuring delivery of the 180MW generation capacity.
Paragraph 2.30 to 2.31	BVAG seek assurances whether a maximum MW generation cap would allow for more clarity over design and layout, and how it relates to future plans and potential extensions beyond 40 years.	Byers Gill Solar will have to be constructed and operated within the Order Limits and subject to the parameters assessed in the Environmental Statement. It would not be possible to expand the project without further consents or changes to leases.
	BVAG's view is that uncertainty, and a lack of clarity about the current proposals provides potential for further expansion both in intensification of use, further land or extensions of time beyond 40 years. Greater transparency would assist in community engagement.	As explained in the Energy Generation and Design Evolution Document [REP2-010], the project has been designed to maximise the available grid connection.

<sup>&</sup>lt;sup>2</sup> https://uk.rwe.com/in-your-community/

 $<sup>^{3}\ \</sup>underline{\text{https://www.rwe.com/en/responsibility-and-sustainability/environmental-protection/climate-protection/}$ 

Paragraph Reference	Summary and/or extract	RWE Response
Paragraphs 2.32 and 2.33:	The RWE website referred to in the RR continues to present the byers Gill proposal as being part of a portfolio with all planning consents in place and states it will become operational in 2026. This in our opinion continues to undermine the planning consent process. Any reasonable reader would assume from the RWE website that the Byers Gill Solar scheme is consented and was due to become operation in 2026.  This creates an impression that the recommendation of the Examination Authority and the subsequent Secretary of State's decision is a foregone conclusion. It undermines the process and the undermines the confidence of the	This has been raised with the relevant department in RWE and they are reviewing the wording on the website. The page referenced presents all projects being proposed by RWE, some of which do not have planning permission. It is a promotional page not relevant to the status of individual projects, and presents planned / potential commercial operation dates across the project portfolio. The project specific website (Home - JBM - Byers Gill DCO (byersgillsolarfarm.co.uk) makes the status of the Proposed Development clear and is regularly updated as the application progresses through the examination process.  The Applicant has prepared a thorough application which has been accepted for examination. As demonstrated through the application and engagement since the start of the examination process, the Applicant takes the role of examination by the ExA, comments and questions from statutory consultees and interested parties, and
	community that the decision will be based upon the evidence of all participants. It feeds into the narrative about RWE and their community relationships globally"	the ultimate SoS decision making process very seriously and does not consider the consenting process to be a foregone conclusion.
Paragraph 2.34	Since MW generation is important to the design and layout around panel type, size, placement, site design, and orientation BVAG would suggest the ExA recommend placing a limit on the MW project size through any consent on the Draft DCO.	It is not considered that any further reference to the generating capacity is needed in the draft DCO. The Examining Authority and the Secretary of State can be assured that the Applicant will seek to maximise the level of electricity produced as part of the Proposed Development to take maximum advantage of the grid connection capacity which is available to it and is explained in the Grid Connection Statement [APP-168] that grid connection is a scarce resource.
Paragraph 2.35	Further, because of the rapidly improving energy density of solar panels, land area required per MW of generation capacity is constantly shrinking and could potentially further reduce even over the length of the planning approval process. The applicant should therefore justify the land area of panels proposed in relation to the intended MW export.	Please refer to the Applicant's response to ExQ1 question DES.1.3 [REP2-007] which addressed the question of whether more powerful panels would create a reduced land take.
Paragraph 2.36		The Applicant has no comment on this section.
Paragraph 2.37	BVAG would ask the ExA to request that the applicant clarifies if the future works to the Norton Sub-station are	The Applicant's response to ExQ1 CU.1.1 [REP2-007] sets out the requirement as confirmed by Northern Power Grid to undertake reinforcement of the Norton

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	needed for the current proposal, and if the additional works provide for expansion beyond the current 180MW connection agreement. BVAG would like to ask if the applicant has explored the potential for further installations within the same DCO area or had discussions with landowners or others, to extend the proposed Panel Areas, and also to extend the operational period of 40 years.	substation. As per the ES extract quoted by BVAG in paragraph 2.36, these works would be carried out by Northern Power Grid, and National Grid Energy Transmission (NGET) are proposing further reinforcement works at the substation.  The Applicant has not had any discussions to expand the Proposed Development beyond the works described in the application. As outlined above, any expansion of the Order Limits would be subject to obtaining further consents.
Paragraphs 2.38 and 2.39		The Applicant has no comment on this section.
Paragraphs 2.40 to 2.41	The Byers Gill application states that its 'expected' 180MW can provide electricity for 70,000 homes. BVAG have compared this claim to other similar proposals. The table below compares four similar NSIP schemes using the headline MW and homes powered data. Omes/MW ranges across the four solar NSIPs range from 22 homes per MW to 344 homes per MW.  Based of the average of the four comparable schemes of 300 homes per MW a 180MW generation of electricity should be estimated to power 54,000 homes — some 23% less than stated in the application. In weighing the public benefits against adverse impacts the benefits should be clear. BVAG would ask if the Applicant can justify the figure of 70,000 homes compared to the other schemes in the table below.	The Applicant has provided a response to this question under ExQ1 PPD.1.13 [REP2-007]. For ease of the reader this response is replicated below:  This calculation would have assumed the use of 570w Jinko panels. Once fully operational, the Proposed Development would be capable of generating enough electricity to meet the average (mean) annual domestic energy needs of 75,043 typical UK homes. Solar energy generation is calculated using the formula below:  • [AC MW] x [24 hours] x [365 days] x [Capacity Factor] / [Annual Average (mean) domestic consumption for the UK]  The capacity factor is derived from the design of the solar farm and the total MWh per year that will be produced. The proposed solar farm could produce 263,872 MWh per annum resulting in a capacity factor of 16.7% [calculated as: 263,872 / (365*24*180)].  • 180 x 24 x 365 x 16.7% / 3.509 = 75,043 typical UK homes.  The 70,000 homes figure was used to ensure the Applicant was being conservative in its communications.
Paragraphs 2.42 to 2.45	NPS EN-3 states (Para. 2.10.67) that "Solar panel efficiency deteriorates over time and applicants may elect to replace panels during the lifetime of the site."  Clearly, once 'planted' the panels can be replaced due to damage, or efficiency issues over time. Replacement is a constant process — like vines in a vineyard where the plants,	As described in Chapter 2 of the Environmental Statement [APP-025], operational activities would include the replacement of components should they fail or be damaged during the 40 year lifetime of the Proposed Development. It is not the case that components require replacement on a regular basis.  The Proposed Development has been designed to maximise the grid connection utilising the most current technology and this is unlikely to significantly change

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	supporting poles and canopy wire are constantly replaced - a % attrition rate is estimated by the farmer and budgeted and planned for each season. It varies depending of vine species, climate, weather and the usual variations of agricultural factors.  RWE as an experienced operator should be able to estimate the rate of replacement and repair per annum for all infrastructure components. With proper maintenance after a period of 40 years the installation could be fully functioning at a rate comparable to modern contemporary installations, or close to. It is not clear therefore how the 'design life' of the panels would be limited to 40 years. Such installations are not designed around a single unit but with many parts which can be upgraded throughout the operational period. Improvements in technology over 40 years would make it likely that less land would be needed to generate 180MW. BVAG would be interested to know if land would be released and decommissioned earlier should this be the case.  BVAG consider that the applicant would seek to ensure that the installation is maintained and replaced as necessary to ensure a design life which meets ongoing operational need. The reference to a design life of only 40 years implies the operation cannot be extended beyond 40 years. BVAG would ask the ExA to seek clarity on this issue	during the period between consent (should consent be granted) and the procurement of components in advance of construction. It is not the case that should much improved technology become available over the 40 year life of the Proposed Development that all solar panels (as an example) would be replaced. Therefore, replacement would not be a constant process. Overplanting has been incorporated to account for degradation in panel array efficiency over time. This is supported by NPS EN-3 paragraph 3.10.46.  The Energy Generation and Design Evolution Document [REP2-010] sets out further information on the Applicant's approach to ensuring delivery of the 180MW generation capacity. Please also refer to the Applicant's response to ExQ1 question DES.1.3 [REP2-007] which addressed the question of whether more powerful panels would create a reduced land take.
Paragraphs 2.46 to 2.50		The Applicant has no further comments on this section and considers concerns over the 40-year operational period and decommissioning have been responded to earlier in this table and sufficiently within the draft DCO [REP2-029].

Paragraph Reference	Summary and/or extract	RWE Response
Paragraph 2.51	BVAG would also request any information on Government subsidies, which are necessary or planned to be supporting this project, such as Contracts for Difference (CfD), and over what time frame these apply.	The Proposed Development's viability is assessed on the basis of not requiring CFD. The decision to apply for this would be taken after development consent if it is granted.
Paragraphs 3.1 to 3.3		The Applicant has no comment on this section.
Paragraph 3.4	Critical matters of principal in this regard would include the generating capacity of the Byers Gill Solar Energy Proposal, and if the development applied for is permanent or temporary, and if so for how many years is the application consent for.	The Applicant has no further comments on this section and considers concerns over the 40-year operational period and decommissioning have been responded to earlier in this table and sufficiently within the draft DCO [REP2-029].
Paragraph 3.5	This [NPS EN-1] recognises the role of solar as providing a clean and secure source of electricity supply and the aim that the UK's energy infrastructure in 2050 is likely to be composed predominantly of wind and solar. As part of delivering this, the then UK government announced in the British Energy Security Strategy an ambition to deliver up to 50 gigawatts (GW) of offshore wind by 2030, including up to 5GW of floating wind. There were no specific targets given for solar generation".	The Applicant agrees that EN-1 does not contain specific targets for solar generation .However, that should be read in the context of paragraph 3.2.6 of EN-1 which explains that "The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part." The Energy NPSs do not set targets for new renewable generation from any specific technology type.  As outlined at Paragraph 3.2.16 of the Planning Statement [APP-163] the Applicant would highlight that the British Energy Security Strategy (2022) does in fact set out the Government's expectation of a five-fold increase in solar energy generation by 2035.  The Applicant would also draw attention to more recent publications such as Powering up Britain: the net-zero growth plan (2023) which identifies a 70GW of solar target by 2035 (see Planning Statement, Paragraphs 3.2.12 & 13 [APP-163]).
Paragraph 3.6 to 3.7	Since January 2024 a new UK Government was elected which has placed wind power at the heart of a new ambition for renewable energy infrastructure in the UK, with proposals to relax previous restrictions toward on-shore	Whilst the Applicant acknowledges the reforms to accelerate the deployment of both onshore and offshore wind since the election of the new Labour Government, National Policy Statements, including EN-1 and EN-3 are clear that

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	wind installations, as well as seek greater provision for roof-top solar and the creation of suitable brownfield sites, for inter alia, commercial scale solar installations.  BVAG referred in their previous RR to the potential change of for the new Government with ambitions to enhance policy on Net-Zero emissions. Whilst there have not yet been any relevant National Policy Changes, the establishment of a new UK Government agency 'Energy GB' is relevant to Government thinking".	renewable energy generation of all sources is supported and will be required in order to provide a secure, reliable, affordable and net zero system.  The Applicant would draw attention to the positive decisions on large scale solar schemes that have been made since the new Government entered power as well as the results of the most recent Contract for Difference auction (AR6) which included support for a large number of ground based solar schemes.  The Applicant considers that solar remains at the heart of a future energy mix under the new government.
Paragraphs 3.8 to 3.9		The Applicant has no comment on this section.
Paragraph 3.10	Solar is currently excluded from the list of projects listed under GB Energy current ambition, but nevertheless foreign control, and the implications for energy security, plat a key part in overarching UK Energy policy and plans.	National Policy, including NPS EN-1, EN-3 and EN-5 show support for the development and deployment of large scale solar in order to meet our future energy needs. This is summarised within the Planning Statement [APP-163].  The Applicant disagrees with the interpretation of the planned Great British Energy (GBE) and the suggestion that solar will not for part of the mix of energy technologies supported by the body. For reference, the GBE website (Great British Energy (great-british-energy.org.uk) includes both support for solar, as well as recognising the importance of partnerships with private sector firms (such as the Applicant) to speed up deployment of mature technologies. The three initial priorities on the website include (emphasis added):  Great British Energy will have three initial priorities working alongside private partners:  1. Co-investing in new technologies: Great British Energy will help speed up and scale the deployment of new technologies, with public investment helping to crowd in investment in areas like floating offshore wind, tidal power and hydrogen as they develop into mature technologies.  2. Scale and accelerate mature technologies: Great British Energy will also help scale and accelerate the roll-out of mature technologies, like wind, solar and nuclear. It will partner with existing private sector firms to speed up deployment of mature renewable technologies to meet our ambitious clean power timelines. It will also build organisational capability and

Summary and/or extract	RWE Response
	expertise to deliver energy megaprojects like nuclear power stations, reducing project and construction risk.  3. Scale up municipal and community energy: GB Energy will partner with energy companies, local authorities and cooperatives to develop 8GWs small-scale and medium-scale community energy projects. Profits will flow directly back into local communities to cut bills, not to the shareholders of foreign companies. This will help to create a more decentralised energy system, with more local generation and ownership, and will help to create a more resilient energy system.  In relation to energy security, it is the Applicant's understanding that the aim of GB Energy around this relates more to generating energy within the UK, for use in the UK, and no longer relying on energy (clean electricity and gas) from overseas
	sources. It is not our understanding that the aims relate to a restriction on 'foreign' companies developing energy projects within the UK. RWE as an organisation employ a large number of people within its UK offices, bringing many benefits to the UK economy and energy system.
	RWE has no comment on this section given that it provides an overview of parts of the NPS EN-3 and the applicant considers that the tests in relation to land section have been met, as outlined through Section 5 of the Planning Statement [APP-163].
The lack of attempts to co-locate with other agricultural uses and explore options for agrivoltaics is a lost opportunity and weights against the proposal, especially when the land take proposed is so massive. NPS EN-3 (Para. 20.10) supports solar which maximises the use of land through co-location with, for example, agriculture. The proposal would have been much improved if co-located agriculture could have been incorporated into the project. Proposals on such scale should benefit from best practise in design and concept. Innovation in solar energy schemes	There remains potential for continued agricultural use in relation to sheep grazing to help manage / maintain the proposed grassland habitat in the Panel Areas. This is referenced within ES Chapter 9 Land Use and Socioeconomics [APP-032], although is not considered as part of the assessment given the uncertainty and requirement for landowner agreements which are unlikely to come until consent is in place.  Agri-voltaics are an emerging field that has not been proven at scale. We seek to retain agricultural use of the land through sheep grazing, which is expected to take place as part of the Proposed Development subject to landowner desire to. It is also possible to graze chickens however this is not likely as part of the Proposed
	The lack of attempts to co-locate with other agricultural uses and explore options for agrivoltaics is a lost opportunity and weights against the proposal, especially when the land take proposed is so massive. NPS EN-3 (Para. 20.10) supports solar which maximises the use of land through co-location with, for example, agriculture. The proposal would have been much improved if co-located agriculture could have been incorporated into the project. Proposals on such scale should benefit from best practise in

Paragraph Reference	Summary and/or extract	RWE Response
	future green economy, protect and create more jobs, and help provide food security alongside energy security.	
Paragraph 3.18	BAVG's opinion is that whilst there is a need and policy support for renewable energy, including ground mounted solar energy installations, that there are nevertheless important considerations which must accompany such proposals and that in this case RWE's proposal for Byers Gill Solar does not appear to have provided either sufficient assessment, or places greater weight on the benefits than is justified, while ignoring the adverse residual impacts.	The Applicant agrees that there is an established need and policy support for ground mounted solar installations and considers that the application provides a robust assessment of the potential effects of the Proposed Development in line with regulations and published guidelines, reflected by the fact that the application has been accepted by PINS for examination.  Whilst the Applicant has made its own assessment of the planning balance within the submitted Planning Statement [APP-163] it is ultimately up to the ExA and SoS to make a judgement on the application.
Paragraph 3.19		The Applicant has no comment on this section.
Paragraph 3.20 to 3.22	The NPPF sets the Government's planning policies for England in relation to decision making and plan making. Paragraph 5 of the NPPF makes it clear that the document does not contain specific policies for NSIPs but confirms that the NPPF is relevant to the consideration of NSIP applications. The NPPF is supported by the Planning Practice Guidance.  BVAG's representations will draw on these as necessary and relevant to the topic framework below. BVAG note that the ExQ1 (GCT.1.7) askes the applicant to set out the implications of the recent Written Ministerial Statement by former Secretary of State for Energy Security and Net Zero entitled 'Solar and protecting our Food Security and Best and Most Versatile (BMV) land (15th May 2024).  BVAG supports the aims of the WMS which clearly intended to place food security higher on the agenda and protect BMV and farmland.	The Applicant acknowledges the status of the NPPF in the decision making process through paragraphs 4.2.7 to 4.2.15 of the Planning Statement [APP-163]. Policies within the NPPF are also considered within Section 5 'Planning Appraisal' of the Planning Statement and within the Policy Compliance Document [APP-164]. This reflects the primacy of the NPSs within the decision making process for NSIP schemes but recognises the NPPF policies as a material consideration in the decision making process, as set out in Paragraph 5.1.3 of the Planning Statement [APP-163].  In relation to the Written Ministerial Statement (not part of the NPPF), the Applicant provided comments on this Statement within our responses to Written Questions [REP2-007], and previously within Comments on Relevant Representations [REP1-004] and would direct the ExA to these fuller responses. In summary, whilst the application for the Proposed Development was submitted prior to the WMS of 15 May 2024, the Applicant considers that it does not change the position of the Proposed Development in relation to agricultural land, or the manner in which this matter should evaluated by the SoS in determining the case for development consent.

Paragraph Reference	Summary and/or extract	RWE Response
		The Applicant would also draw attention to the recent Cottam Solar Project decision which was published on 5 September 2024. Within this decision the SoS outlines that "the 15 May 2024 WMS emphasises elements of the 2024 NPSs" and concluded that the use of arable farmland was in line with the 2024 NPS despite exceeding NPPF guidance.
Paragraphs 3.23 to 3.28		The Applicant has no comment on this section.
Paragraphs 4.1 to 4.3		The Applicant has no comment on this section.
Paragraphs 4.4 to 4.5		The Applicant has no comment on this section.
Paragraph 4.6	In such cases a community relies on the local authorities and statutory consultees — in this case Historic England, DBC and Durham County Archaeologists — to explore these issues and provide the evidence needed for a proper assessment. In my opinion the process seems to have	The Applicant has undertaken ongoing liaison with both Historic England (HE) and the County Archaeologists throughout the development of the project, both in relation to proposed fieldwork and investigations, and in relation to the assessment within the Environmental Statement, our proposed approach, conclusions and mitigation measures.
	overtaken the product".	The Applicant is not aware of any areas of disagreement with these Statutory Consultees and this engagement and position is reflected within the SoCG with HE which was submitted at Deadline 1 [REP1-014] and within the Applicant's response to the Local Impact Report [REP2-008].
Paragraphs 4.7 to 4.8		The Applicant has no comment on this section.
Paragraph 4.9	BVAG strongly disagree with the conclusions reached by the applicant. It is noted that ExQ1 addresses several issues of matters on Heritage and Archaeology. In summary BVAG concerns are:  • The Impact of the proposal on the Bishopton Conservation Area.	RWE acknowledges BVAG's disagreement with the Applicant's conclusions on the assessment. The Applicant has reached an agreed position with HE on heritage and archaeology matters and this is reflected in the SoCG with HE [REP1-014]. The position with DBC on heritage and archaeology is also agreed as set out through the Councils LIR [REP1-023] and the Applicants Response to the LIR [REP2-008].

Paragraph Reference	Summary and/or extract	RWE Response
	<ul> <li>The impact of the proposal on the 12th Century</li> <li>Bishopton Motte and Bailey.</li> <li>Impact on Archaeology</li> </ul>	
Paragraphs 4.10 to 4.13		The Applicant has no comment on this section.
Paragraph 4.14	The DBC Landscape and Visual Amenity is an important report. It shows how the Solar Panels and related infrastructure would surround the Conservation Area, ( and Motte and Bailey) and significantly affect important views into and out of the village. BVAG therefore strongly disagree therefore with the conclusion of DBC LIR which in summary is that the application appropriately assesses the impacts of the proposed development on designated and non-designated heritage assets. The DBC LVA report states, "Harm is identified to the Bishopton Conservation Area but is considered to be 'less than significant' and at the 'lower end of the scale of harm'. "The DBC LIR concludes that the proposal has the "potential to comply with the requirements of DLP Policy ENV1'.	RWE acknowledges BVAG's disagreement with DBC's conclusions on heritage in the DBC LIR. The position of the Applicant with DBC on heritage and archaeology is agreed as set out through the Councils LIR [REP1-023] and the Applicant's Response to the LIR [REP2-008].
Paragraph 4.15	The proposal moves from 'potentially' compliant to compliant if the public benefits outweigh the harm. BVAG consider that the harm is greater than the applicant suggests, and the public benefit of the proposals are over played. Therefore BVAG do not consider that the proposal meets with the Local Plan ENV1 ` Protecting, Enhancing and Promoting Darlington's Historic Environment.`	The Planning Statement [APP-163] and the Policy Compliance Document [APP-164] sets out the Proposed Development's accordance with Policy ENV1.
Paragraphs 4.16 to 4.20.	The Applicant's own ES Appendix 8.2 'Historic Environment Settings Assessment' in reference to Bishopton Conservation Area entitled "Contribution of Setting to Significance" 6.7.11 The setting of the conservation area makes a positive contribution to its significance. This is particularly	In reference to paragraph 4.16, these have been identified as elements of the setting of the Conservation Area which make a contribution to its significance in addition to the views identified within the appraisal document, as set out in the ES Chapter 8 Cultural Heritage and Archaeology [APP-031]. The Proposed Development will not be visible within any of the identified key views and cannot

Paragraph Reference	Summary and/or extract	RWE Response
	true with the view from the south when moving along High Street, past the scheduled motte and bailey, and into the boundary of the conservation area. This view allows for the appreciation of the relationship between the motte and the settlement and adds to the understanding of how power and influence would have been exerted over the landscape. It continues, 6.7.12 Similarly, when looking from Church View/Mill Lane to the south-west towards the motte and bailey allows for the best appreciation and understanding of the relationship between the modern and historic elements of the settlement are visible in the same view with the rural landscape in between." (Document APP-146)  BVAG's opinion is that intervisibility and setting of the village in such close proximity to the Panel Areas (particularly Panel Area F in the case of Bishopton) will have a profoundly negative impact on the village and the Conservation Area. This effect will be upon the heritage, and the resulting impact on people's health and well-being, and sense of place and identity which results from that. The applicant has taken a narrow view of heritage and removed it from its wider functions. Process of assessment has led to each heritage component and phase being reduced to its lowest possible denominator without taking account of the whole. The result has been a reduction in an understanding of the impacts. The assumption of a 40 year operational phase is also under question.  DBC's 'Local Impact Report - Landscape and Visual Amenity' report clearly shows the proximity of the proposed Panel Area (page 42). The report demonstrates the intervisibility, imposition and industrial infrastructure from within and without the village, also from entering and leaving the village, where the juxtaposition of heritage	alter the character and appearance of the Conservation Area, or the ability to experience and appreciate that character and appearance.  The settings assessment has taken into account the whole of the historic environment and, where deemed appropriate in relation to legal tests applied to specific heritage assets e.g. listed buildings and Conservation Areas, or where professional judgement has been used to determine the best course of action, determined that these should be assessed separately so as to identify any likely significant effects. In contrast, some assets have been grouped together due to their shared spatial, historic and or visual relationship as is the case with the listed buildings located within Bishopton, for example.  The Applicant does not agree with the conclusion of this paragraph of the DBC LIR quoted at paragraph 4.19, which is reflected in the heritage assessment and agreement of Historic England and the DBC Conservation officer as set out in the LIR.  In relation to screening referenced at paragraph 4.20, the heritage assessment has considered the provision of screening as part of the development design and input into this process has included areas where gaps in existing hedgerows should be filled and enhanced. The heritage assessment does not at any point rely on the provision of new screening to reduce or mitigate any identified impact as effects through a change in setting are not entirely contingent on visibility.

Paragraph Reference	Summary and/or extract	RWE Response
	buildings and unattractive industrial landscapes will reduce significantly the heritage value as it is experienced by residents and visitors alike.	
	The main mitigation measures to protect the Conservation Area are through screening by hedging and reduction on the Solar PV from 4.5m to 3.5m. The BVAG LVIA Report (part of the WR) concludes why vegetative screening is considered an uncertain and prolonged method of mitigation. The applicant's reliance on vegetation to screen views in the longer term is not considered sufficient. There is no guarantee that it will remain in place, and in the case of new planting, becomes established as intended.	
Paragraph 4.21	"The reduction in PV heights from the 'maximum proposed' panel height from 4.35m to 3.5m is presented by the applicant as a mitigation. Commercial solar PV is unlikely to be as high as 4.35 and most commercial models are usually between 2.8 and 3.5m. What seems a concession was bringing the proposal back to industry norms. In fact the Proposed Development states the design concept is 'Limiting the height of the solar PV modules to 3.5m in height;' still has significant implications for visibility. It is unclear if this is the final design proposal".	The Applicant disagrees with this statement. At the early-stage scheme development two types of panel designs were being considered:  1. Fixed panels which face south and are arranged east to west;  2. Tracker panels which are arranged north to south and track the sun over the course of the day.  Some tracker panels on the market today would require a larger height envelope and this is where the maximum height of 4.35m came from. In response to initial landscape work, as well as concerns raised by members of the public and stakeholders, the decision was taken to restrict the maximum height of the Proposed Development to 3.5m. Following the reduction in available land as set out in paragraph 3.1.16 of the Design Evolution Document [REP2-010] the decision was taken to use fixed modules. Please also refer to the Applicant's response to ExQ1 question PPD.1.5 REP2-007] which provides further detail on our consideration of panel technology and design.
Paragraph 4.22	There is also an inherent contradiction that measures to mitigate visibility of the solar panels and other energy infrastructure - such as tall hedging - can then have an adverse effect on the landscape and traditional hedgerow patterns which exist. This view is shared in DBC's LIR where	The Applicant refers to its response to the DBC LIR at Deadline 2, page 21 [REP2-008] which states:  "The Applicant considers that double-hedged lanes are relatively typical of LCA 6 Great Stainton Farmland, which is the host character type for Panel Areas A and D as shown by ES Figure 7.1 Landscape Context [APP-063]. Within this area, the following routes

Paragraph Reference	Summary and/or extract	RWE Response
	they state, "It is accepted that high hedging (on both sides of a footpath corridor) may be a preferable solution to views of solar panels, but it does not mean that this solution is acceptable in landscapes where such features are uncommon." DBC LIR Para 5.6.12	are double-hedged rights of way: High House Lane, Catkill Lane, Salters Lane, sections of the routes radiating from Brafferton, parts of Ketton Lane. As noted later in the LIR, double-hedging, whilst not ideal in landscapes where it is not typical, or where there are currently open views from PRoW, is judged to be preferable to open views of a solar farm."
Paragraphs 4.23 to 4.25		The Applicant has no comment on this section.
Paragraph 4.26	in relation to the Motte and Bailey: It is therefore hard for BVAG to agree with the applicant that, The Proposed Development will lead to a Negligible magnitude of change on the asset which is of High heritage significance resulting in a Negligible Effect, which is not significant for the purposes of EIA".	The Applicant notes the disagreement but is satisfied with the assessment presented within ES Chapter 8: Cultural Heritage and Archaeology [APP-031]. The Applicant has reached an agreed position with HE regarding the effect on this asset which is reflected in the SoCG with HE [REP1-014].
Paragraph 4.27	With constantly developing interpretation of the events of the period in question, it would have been helpful in the ES Chapter 8 if the historic narrative could have been referenced and sources given. The Chapter does not reveal either the heritage author and is not referenced. For example, the period of Saxon history in the applicant's Ch.8 makes no reference to the Danelaw which saw area around Bishopton as a border between the neighbouring Saxon kingdoms and those areas subject to Danish rule. One local press report states in relation to Bishopton Castle, "It is possible that the fort constructed by Roger de Conyers at Bishopton was built on the site of an earlier earthwork perhaps of Danish origin."	The archaeological and historic background within ES Chapter 8: Cultural Heritage and Archaeology [APP-031] is a summary from taken from the information presented in ES Appendix 8.1: Historic Environment Desk-based Assessment [APP-145] which includes a full list of references.  The author's name is not included in line with General Data Protection Regulations, however, a summary of the qualifications and experience of the Author and the Technical Assurer are set out in paragraphs 1.4.11 and 1.4.12 of ES Appendix 1.1: Competent Expert Evidence [APP-104].
Paragraphs 4.28 to 4.29.		The Applicant has no comment on this section.
Paragraph 4.30	BVAG are concerned about the loss of Archaeological material and potential damage to historical evidence of	As set out on page 17 of the Applicant's comments on the LIR [REP2-008], the Applicant has contacted the County Archaeologist to clarify the meaning of 'post-

Paragraph Reference	Summary and/or extract	RWE Response
	both local and regional, and potentially national importance. The DBC LIR refers to further recommended requirements in the Draft DCO Requirement 17 which BVAG supports.	investigation assessment' as specified in DBC's suggested requirement wording, and is awaiting clarification.
Paragraphs 4.31 to 4.34	It is unclear why the Bishopton Motte and Bailey and its surrounds were excluded from the area wide Geophysical Survey — especially as this is the highest-grade Heritage asset.  As one of the area's highest heritage assets it would seem important to include the Motte and Bailey and surrounds in the geophysical surveys. The plan above below indicates how the proposed cable runs immediately adjacent or even through the Motte and Bailey castle, so there is potential for harm through direct impact should cables be laid around and close to it.  BVAG appreciate that with 30 plus km of potential cables, that geophysical surveys might be disproportionately unnecessary. But in the case of a small section adjacent to the Bishopton Scheduled Monument a short addition to the Area 4 Geophysical Survey would seem justified and proportionate. BVAG would request an explanation from the applicant and Durham County Council archaeologists if justified and acceptable.	The geophysical survey was undertaken as part of survey efforts to establish the baseline conditions within the Order Limits and to subsequently inform the Written Scheme of Investigation and further intrusive survey work. The Motte and Bailey lie outside of the Order Limits and therefore geophysical survey in this area was not necessary. The approach to geophysical survey has been subject to engagement and agreement with the Councils' conservation officers.  As set out within the ES Chapter 8 [APP-031] and referenced within the BVAG submission, the submitted Archaeological Management Strategy [APP-149] includes provision for further archaeological investigation work when the final cable route is known.  The Applicant sets out that:  The assessment of archaeological potential is not predicated upon a single source of information, rather a compendium gathered from numerous sources which are synthesised and analysed by professional archaeologists. Geophysical survey and intrusive evaluation are only two of these sources with the remainder set out within Environmental Statement Appendix 8.1: Historic Environment Desk-based Assessment [APP-145] Section 3.3.  Further archaeological work, including a geophysical survey and evaluation trenching will be undertaken as set out within Environmental Statement Appendix 8.5: Archaeological Management Strategy [APP-149]  Any archaeological remains outside of the scheduled area will be determined upon their own merit, within their wider context and any possible relationship with the motte and bailey assessed. The treatment of any identified archaeological Panagement Strategy [APP-149] which has been agreed with the Archaeological Advisors to Darlington Borough Council and Hartlepool and Stockton Borough Councils.

Paragraph Reference	Summary and/or extract	RWE Response
Paragraph 4.35	Following the Geophysical Surveys areas were selected for trial trenching. The subsequent trial trenching excluded Panel Areas E and F entirely. It is not clear if this is driven by decisions around the Geophysical survey or if landowner consent and access was an issue due to crops in fields. Again, BVAG would request from the applicant and Durham County Council Archaeologists team if this is justified and acceptable, given Panel Areas E and F provide potentially rich sources of Archaeological finds.	Panel Areas E and F were not included in Phase 1 evaluation as the geophysical survey upon which the trench locations were principally based had not been completed. This survey was completed by the time of submission, so the results were included within ES Appendix 8.3: Detailed Gradiometer Survey Report [APP-147] and in ES Chapter 8: Cultural Heritage and Archaeology [APP-031] where impacts to any anomalies consistent with archaeological remains are reported. In addition, these panel areas will be subject to evaluation trenching during the Phase 2 works as set out within the ES Appendix 8.5: Archaeological Management Strategy [APP-149].
Paragraphs 4.36 to 4.37.		The Applicant has no comment on this section.
Paragraph 4.38	BVAG agree with the applicant in their assessment that makes clear,  "The significance of the asset is primarily derived from its archaeological interest through the information excavation could yield in relation to its construction, occupation and abandonment. This archaeological interest is elevated as there is little other evidence from documentary sources. This information gained from any excavations would contribute to regional, and national, research into the administration of the north-east of England during the medieval period."  (Ch.8 ES Para 8.10.65 Document APP-031)	This statement specifically references the primary component of the significance of the Scheduled Monument Motte and Bailey castle 400m south east of Bishopton and is not transferrable to the significance of any of the identified archaeological remains investigated by the evaluation trenching. The significance of these archaeological remains is set out within ES Chapter 8: Cultural Heritage and Archaeology [APP-031] Section 8.87.
Paragraph 4.39	The solar energy proposal will have a potentially significant harmful effect on the Bishopton Motte and Bailey, a Scheduled Monument, and an asset of the highest significance, and its setting. The Bishopton Conservation Area is important to the community and recognises the qualities and character of the buildings and the village within its rural setting. The applicant's assessment has not adequately identified the impacts. The DBC LIR has identified harm and asked the ExA to weigh this harm	The Applicant does not agree that the Proposed Development will have a significant harmful effect on the significance of the Scheduled Monument through a change in setting, a conclusion which is agreed with Historic England [REP1-014]. The settings assessment has been undertaken in line with relevant legislation, national and local planning policy and industry standards and guidance all of which are listed within Environmental Statement Chapter 8: Cultural Heritage and Archaeology [AAP-031] Section 8.2 and within the supporting Environmental Statement Appendix 8.2: Historic Environment Settings Assessment [AAP-146].

Paragraph Reference	Summary and/or extract	RWE Response
	against public benefit. Bearing this in mind It is unclear why the Castle and surrounding fields were excluded from all Geophysical surveys and subsequent Trial Trenching despite these surveys being conducted on land immediately adjacent	No survey was carried out within the Scheduled area as the Proposed Development does not encroach upon its limits. Archaeological work will be conducted, as set out in the answer provided above.
Paragraph 4.40		The Applicant has no comment on this section.
Paragraphs 5.1 to 5.2	Conclusion	The Applicant has no comment on this section, other than to acknowledge the overall conclusion by BVAG of its objection to the Proposed Development.
Appendix A	Issues Framework Table	The Applicant considers that this table is provided primarily for the benefit of the ExA however will seek to engage with BVAG through the SoCG process to understand if any new matters raised within the table should be incorporated into a future iteration of the SoCG and ongoing SoCG discussions.
Appendix B Paragraph 1	The Governments Flood and Coastal Erosion Risk Management Policy Statement sets out our ambition to create a nation more resilient to future flood and coastal erosion risk. It outlines policies and actions which will accelerate progress to better protect and better prepare the country against flooding and coastal erosion. Such the £25mil funding released for natural flood management measures in rural catchments which would enhance an environment such as the Byers Gill plot. Reduce the flood risk to Teeside, and enhance local wildlife. Contrary to this vision the documentation provided by JBM solar confirms in written statements that this development will; "Increase flood risk downstream", "Increase surface water runoff", "reduce percolation", "increase overland flow", "increase sedimentation in water courses" and "increase soil compaction". As a local resident I am therefore extremely concerned that this development has been submitted for consideration.	The Applicant is unsure where these statements have been drawn from. The submission appears to be referring to Preliminary Environmental Information Report (PEIR) stage submissions.  Within the ES Chapter 10 Hydrology and Flood Risk [APP-033] it is recognised that Section 10.8 sets out 'Potential impacts' and includes potential effects such as those described in the comment. However, this is not the Applicant confirming that these things will occur, purely setting out potential effects which are then considered further within the assessment work at Section 10.10.  In conclusion, the assessment does not report any significant effects in relation to any of the matters raised within the comment.

Paragraph Reference	Summary and/or extract	RWE Response
Appendix B Paragraph 2	Referenced by JBM Solar in their PIER reporting, the NSP EN-1 states in section 5.8.7 that: "Where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. It should also be designed and constructed to remain operational in times of flood". Within the Boroughs of Stockton and Darlington where this development is proposed there is a wealth of brown belt land that could otherwise be developed which does not pose a flood risk, therefore I'm concerned that no consideration is given through exception testing to find more suitable land rather than destroy this productive agricultural land. The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development to areas with the lowest risk of flooding.	The Applicant has explained in detail the site selection process which has been followed, as well as outlining alternatives that have been considered, in ES Chapter 3 Alternatives and Design Iteration [APP-126].  Following discussions with the Environment Agency, the Flood Risk Assessment has been updated to ensure clarity in relation to the sequential and exception tests and this was submitted at Deadline 2 [REP2-013]. Paragraph 3.6.2 confirms that flood risk was one of the key considerations in site selection and the consideration of alternative sites and paragraph 3.6.8 concludes that it is considered that the Sequential Test has been satisfied for this development. Paragraph 3.8 sets out the Applicant's consideration of the Exception test.  The Applicant has also undertaken some modelling within areas that are at risk of flooding in order to provide greater certainty over the published date. This has now been shared with the EA and the Applicant continues to liaise with the EA's specialist teams in relation to the outputs.
Appendix B Paragraphs 3 to 6	<ul> <li>(RWE summary): This section seems to relate to the PEIR assessment and makes the following broad points:</li> <li>There is no mention of flood zone 3b in the PEIR reporting.</li> <li>Obstructions such as the piles and supporting legs will remove volumetric area of flood storage required for this land to operate as Flood Zone 3b.</li> <li>Construction of the solar plant will reduce the permeability of this land due to compaction and impermeable surfaces.</li> </ul>	ES Chapter 10 Hydrology and Flood Risk [APP-033] and the Flood Risk and Drainage Strategy [REP2-013] includes detailed consideration of Flood Risk, including potential effects of locating infrastructure in Flood Zone 3.  The Applicant has produced further modelling work for the areas of the Proposed Development which lie within areas of highest risk, and this provides further evidence to demonstrate:  - The assessment in Chapter 10, when considering the proposed embedded and essential mitigation measures, potential effects on downstream flood risk would be negligible.

Paragraph Reference	Summary and/or extract	RWE Response
	- The piles, supporting legs and fences will impede water flows across the floodplain (image provided of a fence catching debris).	<ul> <li>Where panels are proposed within the floodplain, by setting the toe of the panel to 0.8m, all panels would be above the modelled flood level and sufficient freeboard would be provided.</li> </ul>
		<ul> <li>Increased ground roughness within the fence lines shows minor detriment to flood risk, the impact of which is most felt within the panel areas, with events not affecting land or impacting downstream.</li> </ul>
		<ul> <li>As above, the panels would be set to provide an appropriate freeboard and given the nature of the watercourse and location of the fence line the risk of debris catching is low.</li> </ul>
		The EA have considered the results of this modelling and agree with the model outputs and findings with an updated FRA and Drainage Strategy [REP2-013] submitted at Deadline 3.
Appendix B Paragraph 8	The evidence provided for the impact to flood risk and future climate change in the reporting provided feels neither proportionate to the risk nor appropriate to the scale, and nature of this development.  In addition the roughness coefficients of this swathe of currently green belt land would also be altered changing the hydraulic behaviour of water routing over the surface of the land.	As outline above, the modelling work undertaken by the Applicant has further considered flood risk and considered roughness coefficients.  The Applicant clarifies that none of the land within the Order limits is greenbelt land, as confirmed by the Application documents (see paragraph 2.5 of ES Chapter 2: The Proposed Development [APP-025] and ES Figure 2.19: Environmental Constraints [APP-057]).
Appendix B Paragraph 10	Chapter 10 Hydrology and Flood risk of the submitted JBM Solar reporting notes that there will be two new crossings over watercourses as part of the proposed development. New structures provide the opportunity to change the flow dynamics both on the floodplain and in channel, and increase blockage risk associated therefore I would have hoped to see that JBM solar investigated what impact these structures may have for the flood risk to us as local residents and to the morphology and habitats in the vicinity. I would expect that a detailed hydraulic model would be	The applicant clarifies that paragraph 10.8.15 of ES Chapter 10 [APP-033] refers to two new proposed access crossings which would cross minor tributaries of the River Skerne and Little Stainton Brook.  The Applicant refers to its response to WFR.1.17 [REP2-007], which is reproduced below for ease of reference:  The exact design of these crossings will not be confirmed until the detailed design stage of the Proposed Development and following the appointment of a contractor team. The approach to the design of new watercourse crossings is described in paragraph 2.6.38 of ES Chapter 2 The Proposed Development [APP-025] as embedded mitigation. This confirms that the design of new watercourse crossings will be agreed with the Lead

Paragraph Reference	Summary and/or extract	RWE Response
	required to assess in full the impact of adding structures to any watercourse designated main river.	Local Flood Authority (LLFA) prior to construction and will be designed with regard to the CIRIA Culvert Design and Operation Guide. The design will ensure that the culvert will not increase erosion by having a buried invert so the natural bed formation remains in situ. With this embedded mitigation, the magnitude of impact would be negligible.
		Future iterations of the outline CEMP [APP-110] developed under Requirement 4 of the dDCO (Document Reference 3.1 Revision 2) would consider the final design solution for these crossings and would undergo consultation with the LPA and therefore the LLFA.

## 3. Comments on REP2-044 (Landscape & Visual Review)

3.1.1. The table below provides a response to the Landscape & Visual Review [REP2-044] prepared by Carly Tinkler on behalf of BVAG, including the appendices. Given that some of the appendices, namely B and C, are separate documents in the Examination Library (REP2-045 and REP2-046 respectively), the table is responding to references in REP2-044 unless stated otherwise.

- 3.1.2. Where the Applicant wishes to comment on a paragraph (or paragraphs), these are extracted in full in the third column to aid the reader. Where such an extract is particularly lengthy comparative to the Applicant's comment, or the comment relates to only a specific part of the paragraph, these extracts may be summarised or abridged instead. In column 3 of Table 3-1, relevant paragraphs from the BVAG Landscape and Visual Review [RE2-044] are reproduced in italics, and any text to summarise points made by BVAG/Carly Tinkler on behalf of BVAG are included in ordinary text.
- 3.1.3. Whilst REP2-044 is titled 'Landscape and Visual Review', the Applicant notes that the submission relates to a wider range of environmental topics, and therefore a column to identify the general topic is provided to aid the reader.

Table 3-1 Comments on BVAG Landscape and Visual Review [REP2-044] and appendices

Document Reference	Topic	Summary and/or extract	RWE Response
Paragraphs S1 to S28	General	Summary section	The Applicant has no comment on this section. This does not indicate agreement – rather that the points made are dealt with below in terms of commenting on the detail.
Paragraphs 1.1.1 to 1.2.10	General	Background and Relevant Experience	The Applicant has no comment on this section. This does not indicate agreement – rather that the points made are dealt with below in terms of commenting on the detail.
Paragraphs 2.1 to 2.14 (excepting paragraph 2.5)	General	Summary of key issues discussed in the document	The Applicant has no comment on this section. This does not indicate agreement – rather that the points made are dealt with below in terms of commenting on the detail.
Paragraph 2.5	Landscape and visual	However, as explained in the previous section, 'landscape' covers / is relevant to a wide range of environmental and other topics, for example heritage,	Whilst it is the case that other environmental topics have a relationship with landscape and visual matters, that does not mean that landscape architects are competent to

Document Reference	Торіс	Summary and/or extract	RWE Response
Reference		biodiversity, soils, hydrology, transport, and recreation.  Views / visual amenity are also relevant to some of these Views / visual amenity are also relevant to some of these.	undertake, or technically review assessments undertaken, for other environmental topics.  As REP2-044 covers multiple environmental topics in varying levels of detail – relevant experts from the Applicant's team have provided responses below. Details of the relevant competent experts for each discipline are provided at Appendix 1.1 to the ES [APP-104].
Paragraphs 3.1.1 to 3.1.8	Landscape and visual		The Applicant has no comment on this section.
Paragraphs 3.2.1 to 3.2.3	Landscape and visual		The Applicant has no comment on these sections.
Paragraph 3.2.4	Consultation		The Applicant has no comment on this section
Paragraphs 3.2.5 to 3.2.6:	Consultation	At para. 7.3.5, the Applicant's LVIA explains that 'Engagement in relation to LVIA has been undertaken within a number of stakeholders throughout the EIA process'. However, the list of stakeholders consulted does not include BVAG. In fact, BVAG have expressed both concern and disappointment in the lack of meaningful engagement and conversation with the Applicant, despite best efforts, especially in terms of discussions about the scheme's siting, layout and design, and potential landscape and visual mitigation and / or enhancement / benefit.  This is explained further in BVAG's Inadequacy of Public Consultation Report dated the 17th of February 2024 (attached as an Annex to DBC's Adequacy of Consultation Representation report dated the 24th of February 2024, which was submitted to PINS (doc ref AOC-002)).	The Applicant has provided a response to suggestions that the consultation on the Proposed Development has been inadequate, within section 2.2 of Comments on Relevant Representations [REP1-004]. As evidenced in the Consultation Report [APP-017], the Applicant has engaged with BVAG during the pre-application period and specifically in relation to the LVIA, had opportunity to comment on the preliminary assessment as reported in the PEIR and published at statutory consultation. As set out in section 1.3 of this document, the Applicant has recently met with BVAG (17 September 2024) and has committed to a further meeting focused on design; an update on this engagement will be provided at a future deadline.

Document Reference	Topic	Summary and/or extract	RWE Response
Paragraphs 3.2.7 to 3.2.9	Consultation		The Applicant has no comment on these sections.
Paragraph 3.2.10	Consultation		The Applicant has no comment on this section
Paragraph 3.2.11:	Landscape and visual	As mentioned above, my review concluded that certain aspects of the Applicant's LVIA method and process are flawed. In summary, they relate to:	See 4.8 (iii) below in relation to visual receptors and 3.2.96-103 in relation to landscape receptors.
		<ul> <li>i) Insufficient granular baseline study and analysis, which has resulted in several landscape and visual / recreational receptors not being identified.</li> <li>ii) Several of the excluded landscape receptors are of high value / sensitivity, and make important contributions to landscape character and visual amenity.</li> </ul>	
Paragraph 3.2.11:	Landscape and visual	(iii) In particular, the LVIA did not consider the landscape history and historic landscape character of the site and surrounding area, which is a key factor in levels of landscape value and sensitivity having been underestimated.	See 3.2.65 below.
Paragraph 3.2.11:	Landscape and visual	iv) The LVIA did not consider sequential visual effects, in that the proposed development would be visible multiple times from different points along the same journey.	See 3.2.86 below.
Paragraph 3.2.11:	Landscape and visual	v) The LVIA did not consider the fact that the area's landscapes provide a highly-valued recreational resource which is well-used not only by the local communities, but also visitors.	ES Appendix 7.3 [APP-134] considers the contribution of amenity and recreation to landscape value for the two host character types and the character of settlements.
Paragraph 3.2.11	Landscape and visual	(vi) As a result of the above, the LVIA underestimated levels of landscape and visual value, and susceptibility	See 3.2.104-113 in relation to landscape receptors and 3.2.114-121 in relation to visual receptors.

Document Reference	Topic	Summary and/or extract	RWE Response
		to the form of change proposed, and thus, in some cases, levels of receptor sensitivity were under-reported.	
Paragraph 3.2.11:	Landscape and visual	vii) The LVIA did not factor in the cause and nature of many of the effects likely to arise during project construction, operation, and decommissioning.	The Applicant considers that all relevant landscape and visual effects have been described in the LVIA [APP-030]. See also 3.2.83; 4.2.2-48; 4.31-4.2; 6.30-6.69 and 7.1-7.7 below.
Paragraph 3.2.11	Landscape and visual	(viii) Some of the levels of adverse magnitudes of effect were underestimated / under-reported, and some beneficial magnitudes were incorrectly assumed. This is due to errors and flaws in the methods used and assumptions made, including some of those mentioned above, especially lack of granular survey and analysis, and not understanding the cause and nature of effects, along with:	Ms Tinkler's representation does not further elaborate on this by identifying any specific landscape or visual receptors for which she deems magnitude judgements to be underestimated / under-reported.
			All reported effects in the LVIA [APP-030] were assessed, not assumed. The only positive effect reported in Table 7-13 in the LVIA is 'Changes to landscape fabric as a result of establishment of new hedgerows and trees' which is simply reported as 'not significant'; no magnitude judgement is provided (see also 5.7-5.19 below.)
		<ul><li>a) Inadequate / flawed criteria</li><li>b) Erroneous assumptions, for example that direct</li></ul>	
		effects on landscape character can be mitigated when they cannot, and that screen planting which is proposed to mitigate adverse effects on views would also mitigate direct adverse effects on character, which it would not.	In relation to a) This point is not elaborated on in Ms Tinkler's critique of the LVIA methodology in section 3 of the representation. Paragraph 3.2.17 is the only comment provided and is a one sentence summary of the approach taken in the ES.
		c) Double-counting mitigation measures as enhancements.	In relation to b) See 5.3 (iii) below. In relation to c) See 5.7-5.19 below.
Paragraph 3.2.11:	Landscape and visual	<ul> <li>(ix) Other reasons for levels of magnitude of effect having been under-reported include:</li> <li>a) Over-reliance on existing and proposed vegetation to screen views in the future</li> </ul>	In relation to c) see 5.7-5.17 below.  In relation to a) see 5.20-5.27 below.  In relation to b) The Outline LEMP [APP-118] sets out management measures as referenced at 7.11.1 of the LVIA

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		b) Incorrect assumptions made about plant growth rates, and how screening vegetation would be managed.  c) Some of the proposed landscape and visual mitigation measures in themselves giving rise to adverse landscape and visual effects, for example, the disruption of characteristic field patterns through the creation of new field boundaries on arbitrary lines, and double-hedged corridors along public rights of way (PRoWs); and some of the planting not only being uncharacteristic in these landscapes, but also, screening fine, highly-valued open views	[APP-030]. In relation to growth rates see 5.3 (v) and 5.20-5.27 below.  In relation to c) See 5.3 (viii) below.
Paragraphs 3.2.12 to 3.2.17	Landscape and visual		The Applicant has no comment on these sections. The point raised at 3.2.16 is responded to at 3.2.18-3.2.26 below.
Paragraphs 3.2.18 to 3.2.22:	Landscape and visual	The LVIA has misinterpreted GLVIA3 in relation to establishing whether or not an effect is 'significant'. Whilst this does not affect the results, it is an important technical matter.	Ms Tinkler is correct in that paragraph 7.4.8 of the ES should strictly have said that "the level of effect" is assessed by combining magnitude and sensitivity, rather than "significance".
		LVIA para. 7.4.8 states that 'The significance of a landscape or visual effect is assessed through professional judgement, combining the sensitivity of the receptor with the predicted magnitude of change, as summarised in Table 7-4'.	This is however a reflection of the common use of the word 'significance' (including in GLVIA3 <sup>4</sup> – at Figure 3.5 for example) rather than an error of methodology. That this is the case is evidenced by the clear definitions of 'level of effect' and 'significance' provided in the glossary at the end
		However, 'significance' is not an outcome of the combination of the sensitivity of the receptor with the	of ES Appendix 7.1 [APP-132]. Appendix 7.1 paragraphs 39-40 also indicate varying levels of 'significance' (i.e. levels

<sup>&</sup>lt;sup>4</sup> Landscape Institute and IEMA, Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013.

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		predicted magnitude of change. The correct method is firstly, to state the overall level of effect resulting from the combination of the level of receptor sensitivity with the predicted level of magnitude of change — for example, respectively High and Low levels, which theoretically would result in a Moderate level of overall effect. Then, a judgement is made about whether or not that level is 'significant', based on a pre-stated significance threshold — see below.	of effect) which arising from combining sensitivity and magnitude, along with a clear threshold above which effects would be deemed to be significant.  The GLVIA3 statement of clarification referenced by Ms Tinkler at 3.2.21-3.2.22 has been superseded by LITGN-2024-01 <sup>5</sup> (referred to by Ms Tinkler at 3.2.16, 3.2.26 and 5.12), which updates the guidance provided in relation to this matter. In the updated clarification, the distinction between the level of effect and significance remains, and
		In fact, this is a fairly common error amongst practitioners: so much so that the LI produced a statement of clarification on the subject (GLVIA3 Statement of Clarification 1/13 10-06-13). Under the heading 3 Significance, it says:	the new guidance is firmer in advising practitioners to avoid using the term 'significance' in relation to the level of effect and to use it only in determining whether an effect is significant or not – as Ms Tinkler recognises at para 3.2.24.
		'Members may find the following helpful: In simple terms, assume an environment (A). Then assume a proposed development (B). B is placed into A and, as a result, gives rise to impacts which permit the identification of effects of various sorts. The level of, or degree of, effect may then be judged. This may be achieved, for example, by determining magnitude and registering it against sensitivity, each as defined in GLVIA3 in Paras 3.23 to 3.30. Depending on the means of judgement and terminology (which should be explicitly set out), effects of varying degrees of change (or levels of change) may be derived. The assessor should then establish (and it is for the	

<sup>5</sup> Landscape Institute, 'Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment', 2024, Available at: Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3) LITGN-2024-01 - Landscape Institute

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		assessor to decide and explain) the degree or level of change that is considered to be significant.	
Paragraph 3.2.23 to 3.2.24	Landscape and visual	LVIA Table 7-4 Significance is the matrix used in the LVIA to establish 'significance' but in fact, it provides the overall level of effects. Table 7-4 is problematic as it combines different point scales (three for sensitivity, and four for magnitude) which can skew the results.  LVIA para 7.4.9 does go on to explain that 'The significance of any identified landscape or visual effect is assessed as Major, Moderate Minor or Negligible. Where the effect has been classified as Major or Major/Moderate this is considered to be equivalent to likely significant effects referred to in the EIA Regulations'	This point is made generically – Ms Tinkler provides no further comments as to whether she considers the approach has detrimentally affected the Applicant's LVIA. Appendix 7.1 to the ES [APP-132] at paragraph 39 introduces the table of magnitude and sensitivity judgements, indicating that it "is not used as a prescriptive tool and illustrates the typical outcomes, allowing for the exercise of professional judgement". Thus the scales could not 'skew the results' – the assessor exercises their judgement in determining the level of effect, and if it had been felt that the table did not properly illustrate the judgement process a different illustration would have been provided.
Paragraph 3.2.25 to 3.2.26	Landscape and visual	Notwithstanding the combination of point scales above, I agree that Major or Major/Moderate levels of overall effects should be categorised as 'significant' for the purposes of this project, but in my opinion and experience, consideration should also be given to Moderate levels as there may be factors which still result in what would normally be categorised as 'significant' effects.  Para 3(5) of the LI's recently published (august 2024) GLVIA3 statement of clarification for practitioners, to which I contributed explains that	As indicated at paragraph 40 of ES Appendix 7.1 [APP-132], for all Moderate effects identified in the ES, careful consideration has been given as to whether they should be identified as significant. The quotation provided from LI TGN-2024-01 <sup>6</sup> relates to an example/illustration and is not guidance on the treatment of Moderate effects in LVIA.

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<sup>&</sup>lt;sup>6</sup> Landscape Institute, 'Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment', 2024, Available at: Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3) LITGN-2024-01 - Landscape Institute

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		'typically, effects falling below the middle of the range of overall effect are assessed as not significant. For example if using a scale of minor/moderate/major, then major effects will be significant and minor effects will not be significant/ In this example, moderate effects may or may not be significant and justification would be needed in the methodology or receptor assessment as to whether a moderate effect is significant or not	
Paragraphs 3.2.27 to 3.2.28	Landscape and visual		The Applicant has no comment on these sections.
Paragraph 3.2.29 to 3.2.30	Landscape and visual	LVIA para. 7.4.14 explains that 'The Proposed Development does not include permanent lighting. Infra-red security lighting would be used at night, and lighting would be available for emergencies. As a result, no significant effects are likely to arise at night, and night-time impacts are not assessed further'.  Firstly, the LVIA has not considered the landscape and visual effects arising from lighting during construction; and secondly, there could be floodlighting at the on-site substation	Floodlighting is not proposed at the onsite substation. As set out in ES Chapter 2 The Proposed Development [APP-025], there is no permanent lighting proposed as part of the Proposed Development, except for the localised emergency security lighting in proximity to the substation and energy storage systems. Such lighting would be triggered by movement only or manually turned on, and so would not be active for all hours of darkness. CCTV to be installed along the security fencing associated with the onsite substation and energy storage system would utilise infrared technology.  Lighting during construction to be subject to the approval of the local authority via the CEMP. The outline CEMP [APP- 110] at paragraphs 2.3.16-2.3.17 indicates that the use of lighting will be minimised and in accordance with various recommendations to prevent or reduce the impact on human and ecological receptors. It would not be expected to give rise to effects requiring LVIA.

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Paragraph 3.2.31 to 3.2.32	Landscape and visual	Residential Amenity  Although the heading is 'Residential Amenity', this section only mentions the visual aspects of effects on residential amenity. It explains that the assessment of effects on residential visual amenity is set out in ES Appendix 7.6.  I briefly consider certain aspects of residential amenity effects in Section 6.	The section referred to only considers residential visual amenity because it is the aspect of residential amenity which is covered by guidance relating to changes to views and is closely related to LVIA matters.  The Applicant considers that other aspects of residential amenity do not relate to landscape and visual amenity and these other aspects are covered in ES Chapter 9 Land Use and Visual [APP-032] in relation to public rights of way, recreation, socioeconomics and community benefits.
Paragraph 3.2.33 to 3.2.36	Landscape and visual	LVIA para. 7.6.1 explains that at the start of the LVIA process, the LVIA study area boundary was set at 2km from the panel areas. However, following responses to the scoping exercise, for the PEIR stage the boundary was increased to 5km. Following preliminary stakeholder consultation on the Application (see Principal Areas of Disagreement Statements (PADS) in ES Doc 7.6 Potential Main Issues for Examination (PMIE)), the boundary was set to 3km.	The ES stage LVIA study area was informed by the use of ZTV studies, by the wider area assessment carried out for the PEIR stage and via consultation as set out at Section 7.6.1 of the ES [APP-030]. The Applicant notes agreement on the adequacy of the LVIA study area.
		I agree that the 3km LVIA study area boundary is adequate, on the basis that no significant adverse landscape or visual effects are likely to arise beyond 3km from the panel areas.	
		But please note that in principle, I do not agree that it is appropriate to use the Zone of Theoretical Visibility (ZTV) plans to establish the study area boundary for assessing effects on landscape character (which includes for example experiential and recreational effects), because development will cause change to / give rise to effects on character, but it	

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		may not necessarily cause change to / give rise to effects on views (for example, the development may be able to be camouflaged, or fully-screened, or there may be no visual receptors within the development's zone of visual influence (ZVI)). In other words, as the popular saying goes, "Just because you can't see something, doesn't mean it's not there".  In fact, although not provided here, a ZVI plan would be helpful in allowing a better understanding the likely extent of visual effects, as it shows the areas from which it is predicted that the proposed development would actually be visible, as opposed to theoretically. Whilst a viewpoint location plan can give an indication of this, it does not give a true reflection, which makes it difficult to draw objective conclusions.	
Paragraph 3.2.37	Landscape and visual	Also, I do not agree that 100m is sufficient for the Residential Visual Amenity Assessment (RVAA) boundary.	The Applicant is satisfied that 100m is a suitable distance. The Applicant acknowledges Ms Tinkler's view but notes that no alternative study area is proposed by Ms Tinkler at any point in her representation, and she does not identify any specific properties which she judges should have been considered, or which may experience effects requiring consideration in the RVAA.
Paragraph 3.2.38 to 3.2.40	Landscape and visual	LVIA para. 7.4.2 explains that a ZTV study was carried out, and ZTV plans were produced (See ES Figures 7.2, 7.3, and 7.8).  Firstly, the different colours used on the ZTV plans are helpful in showing the likely visibility of the proposed panel areas and substation (but see below); however, because the 1:25,000 OS map base used is	All of the landscape and visual information suggested as being a helpful addition (landscape designations, rights of way) were considered as part of the ZTV study and are shown on other ES Figures. Rights of way and the ZTV study are shown on Figure 7.7 [APP-069], and designations and the ZTV study are shown on Figure 7.5 [APP-067].

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		black and white, it is difficult to establish the locations of potential viewpoints / view routes along highways and PRoWs. Also, high-value landscape receptors such as local landscape designations and heritage assets aren't marked on ZTV plan, so it is very difficult to establish whether visual receptors in those places would have views of the developed site. For my own assessment, I printed out a copy of the Applicant's ZTV Figure 7.2, and marked on roads,	
		PRoWs and the high-value landscape receptors in colour by hand.	
Paragraph 3.2.41 to 3.2.44	Landscape and visual	Secondly, the ZTV exercise is not a bare-earth scenario: it factors in buildings (assumed to be 7.5m tall), and 'principal' woodland (trees assumed to be 10m tall, although that is conservative - mature woodland is likely to be at least 20 – 30m tall – mature oak can get up to 40m).	A ZTV study is as its acronym implies 'theoretical' - it is a modelling tool to inform the assessment and must be appropriately interpreted. For the area which is the subject of the Applicant's LVIA, a ZTV study including principal woodlands and settlement was used as being the most realistic worst case (hence the 'conservative' modelling of
		The problem with factoring in screening from woodland at this stage in the process is that over the lifetime of the proposed development (c. 40 years' operation, and probably several years of construction and decommissioning — see Section 4.2 below), it is highly likely that the baseline situation will change considerably, with the loss of some woodlands, and the growth / addition of others.	woodland heights as noted at 3.2.42) model of visibility, as it is judged that mapped woodlands and buildings were likely to remain largely in their current form for the lifetime of the Proposed Development. It is not an area of extensive forestry where clear-felling may be expected, and the urban areas would be unlikely to decrease in extent. See also section 5.20-5.27 below.
		This, combined with uncertainties about how long other vegetation such as hedges and tree belts would retain its current screening properties means that it is impossible to predict what the degree of screening	

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		by vegetation would be at any one point in time in the future.  In fact, these days, many practitioners including myself do not consider it safe, or best practice, to rely on vegetation to screen views in the longer term, since there is no guarantee that it will remain in place (or in the case of new planting, establish at all). This is explained further in Section 5.	
Paragraph 3.2.45 to 3.2.47	Landscape and visual	Thirdly, the ZTV target height for the panel tops is 3.5m from ground level. However, from the LVIA and ZTV plan, I was unable to ascertain the height above ground level used for the substation target, and whether it is the highest element in the substation, ie the lattice tower — the submitted plan ES Figure 2.14 Typical Substation is not annotated; also, Figure 2.14 has a bar scale, but that appears to be incorrect. However, for now, I have assumed that the description in the ES Non-Technical Summary is correct, ie there would be a 15m communications tower, and electrical equipment up to 8m. Finally, it is not clear whether the height of the ZTV targets (panels and substation complex / elements) were based on existing or proposed ground levels.	The heights which were used in the ZTV were 8m for the on site substation. The Applicant acknowledges that it would been helpful to include those details in the key to ES Figure 7.8 [APP-070]. This clarification can be made in an update to the ES Errata and Management Plans Proposed Updates [REP2-012] at a future deadline.  The Applicant notes that its response to ExQ1 LSV 1.6 i [REP2-007] - although that was a different question as to how the heights informed assessment, rather than what has been included in the finished ZTV study. The response provided was correct in stating that a ZTV study of the mast informed viewpoint selection, but the finished ZTV study is provided at a height of 8m reflecting the maximum height of the other elements of the substation.  As set out with the Applicant's response to ExQ1 LSV. 1.6, — due to the combination of the lattice structure which is not readily seen at a distance and the adjacent woodland at Square Wood, there would be very limited visibility of the mast. However, the conservative modelling in the ZTV of woodlands at 10m* (lower than the mast - whereas in practice woodlands are more typically taller than the 15m proposed mast) combined with ZTVs taking no account of

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Reference			slimmer structures becoming more difficult to discern with distance, meant that the ZTV including the mast showed widespread visibility which was not expected to arise in practice, which would have potentially created a distraction from the more important matter of the potential visibility of the main substation structures. As a result the decision was taken to omit the mast so that the ZTV study focussed on the more important aspect. ZTV's are just one of the tools available to inform the assessment, and omitting the mast from the ZTV has not prevented the effects from being considered within the LVIA as clarified by the Applicant's response to ExQ1 LSV.1.6.  Heights are modelled based on current ground levels, as no notable changes to ground levels are proposed.  * Note – the key to Figure 7.1 erroneously describes the height of woodland being modelled at 15m, whereas it was modelled at 10m as correctly stated in the text below the key.
Paragraph 3.2.48 to 3.2.53	Hydrology	The Applicant's Flood Risk Assessment and Drainage Strategy (ES Appendix 10.1) states that there is no requirement to raise vulnerable infrastructure or panels, but some of the vulnerable scheme elements may have to be raised above existing ground levels anyway, for example to prevent ingress from surface water runoff.  I was unable to ascertain whether the Applicant's designs and studies (hydrological, landscape / visual and others) had factored in the Environment Agency (EA)'s revised (December 2022) Tees Management Catchment peak river flow allowances.	The climate change allowances are referenced in ES Appendix 10.1 FRA and Drainage Strategy [REP2-013] with reference to design life and the Applicant can confirm that the Flood Risk Assessment has been undertaken based on the higher central peak river flow allowance for the 2080s, which for the Tees Management Catchment is 40%.  Following feedback from the EA, we have undertaken bespoke flood modelling for panel area D02 to assess climate change allowances to ensure a freeboard is achieved between the lower edge of the panels and the predicted flood level using the appropriate Tees Management Catchment peak river flow allowances (40%). The modelling also looks at the

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		On the assumption that the proposed development would become operational by the late 2020s and would operate for 40 years, ie into the late 2060s, then the siting, layout and design of the scheme elements would have to be based on the relevant current peak river flow allowances for the catchment, as shown in the screenshot overleaf from the EA's online Hydrology Data Explorer, ie ranging from 21% to 41% for the 2050s, rising to 32% to 61% for the 2080s.  Regarding flooding, another important point to bear in mind is that whilst solar panels are not categorised as 'vulnerable' infrastructure, and in principle may be acceptable development within flood zones, the latter is dependent on there being sufficient freeboard allowed under the panels for flood water to flow through. Whilst that can be calculated and factored in to the scheme design, I have heard of instances where solar panel legs blocked water-borne debris, creating dams across the site and causing flood flows to deflect onto roads and into neighbouring settlements.  If the above allowances were not used / assumed, or, if the incorrect assumptions were made about the ground levels at which scheme elements would sit, then the ZTV should be remodelled, as evidently, taller scheme elements would result in a) levels of visual effects being higher for certain receptors, and b) the geographical extent of visual effects being further than assumed / assessed.	impact of the legs on floodplain flows and confirms there are no 3rd party impacts. There are no roads or settlements in the proximity of panel area D02. This modelling is currently being reviewed by the EA and will be submitted as an addendum to the FRA.  Based on the results of the modelling it is not anticipated that panels would need to be raised further.

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		Clarification of the above points would be helpful.	
Paragraph 3.2.54	Landscape and visual	It would also be helpful if the Applicant could provide a bare earth ZTV, ideally either a) on a full-colour 1,25,000 OS map base, or b) with roads, PRoWs and high-value landscape receptors such as local landscape designations and heritage assets highlighted in colour on the black-and-white version.	See 3.2.38-40 above in relation to showing receptors on ZTV studies.  A bare earth ZTV study could be provided, however the Applicant considers it should not inform decision-making. It is not considered that all or most of the buildings and woodland currently in the study area would be likely to markedly decline and/or be removed during the lifetime of the development (see sections 5.20-5.27).  Furthermore, if such a scenario were considered likely enough that it should inform decision-making for this project, a ZTV study would not be sufficient to assess the implications of such a major change to the baseline. The loss of all or most vegetation in the study area would have profound implications for the future baseline – for instance landscape character would change, and it is possible that currently designated landscapes would no longer be worthy of designation. The implications of such a change would also not be likely to be confined to just the landscape and visual topic.
Paragraphs 3.2.55 to 63	Landscape and visual	These paragraphs are not replicated here due to length and the fact they contain many quotes from the Applicant's LVIA, which it is considered isn't necessary to duplicate. However, in summary, these paragraphs set out the author's critique of the LVIA baseline landscape character survey and analysis, concluded in paragraph 3.2.55 to be 'very limited' and to require 'more extensive and granular fieldwork to justify the LVIA's conclusions' (Paragraph 2.3.57).	The lack of description reflects the purpose of an LVIA rather than the depth and nature of the work that has been undertaken to prepare it. This LVIA has been informed by detailed site work during this LVIA and by the assessor's prior experience in this area working on both Moorhouse and Lambs Hill wind farms.  The purpose of the baseline for an LVIA is firstly to understand it and secondly to explain what is important for the decision maker – the latter being aided by succinctness. The purpose is not to provide the detailed baseline

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Reference			description that would be expected in a landscape characterisation study. It is sometimes the case that it is necessary to undertake a characterisation study to inform an LVIA, and this used to be more frequently the case before local authorities routinely carried out detailed district level assessments. The benefit of local authority studies is that they are "usually the most robust and considered documents" (GLVIA3, para 5.12) 7, and the guidance goes on to recommend that they should be carefully reviewed and that "justification should be provided for any departure from the findings of an existing established LCA" GLVIA3, para 5.12).  As set out at section 7.73-7.75 of the ES [APP-030], the Darlington Landscape Character Assessment [REP2-036 to 041] (and the equivalent studies for Durham and Stocktonon-Tees) was used as a primary reference for the ES. It is a relatively recent, detailed local assessment which considered factors such as geology, historic features,
			aesthetic and perceptual qualities, which Ms Tinkler suggest should be considered in the ES. In undertaking the LVIA, including the detailed review of landscape sensitivity provided in Appendix 7.3 to the ES [APP-134] the assessor found no reason to disagree with the Darlington LCA, and for that reason no comment is provided.
			In relation to the two host LCAs, commenting on whether or not they are 'typical' of the host LCA is not required – the entirety of LCA 6 Great Stainton Farmland is in the study area and almost all of LCA 7 Bishopton Vale. The

<sup>&</sup>lt;sup>7</sup> Landscape Institute and IEMA, Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013.

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			transitional nature of the northern part of LCA 7 is noted in both the LVIA and Appendix 7.3.
Paragraph 3.2.64	Landscape and visual	My own assessment found a multitude of important variations within the site itself as well as within its contextual landscapes, a wide range of highly-valued assets, and many important positive attributes, characteristics, qualities, and functions, including the following:  [the response lists point i) to xiii) which set out the author's conclusions of their own baseline assessment.]	The descriptions provided by Ms Tinkler here are subjective and more of a series of observations than a comprehensive description of character.  All landscapes have variations in character and views, and much of the description provided could be applied to any rural landscape in England – some pleasant views and others which are less so, watercourses, historic features, narrow roads, villages and agriculture, experiences of tranquillity and the changes of seasons and opportunities for recreation. These aspects all form part of its 'Community' value as a landscape not recognised via designation for its special qualities, but important to those who live there nonetheless. Appendix 7.3 to the ES provides a consideration of landscape value, based on the factors identified in guidance, and notes that the condition of LCA 6 Great Stainton Farmland and its scenic qualities are of 'Regional' value, but other qualities are not and thus the LCA is considered overall to be of Community Value. The comments provided by Ms Tinkler at points (xiii) to (xvii) are neither objective nor relevant to LVIA.
Paragraph 3.2.65	Landscape and visual	The Applicant's LVIA did not properly consider cultural heritage, in terms of the landscape history and historic landscape character of the site and surrounding areas, despite this being an integral part of the LVIA process. For example, GLVIA3 paras. 5.7 to 11 emphasise that 'the relationship between landscape and historic landscape matters is close', and that 'Landscape professionals should make good	As set out at section 7.1.5 of the ES [APP-030], the LVIA considers the contribution that heritage makes to landscape character and value. It is not the function of LVIA to consider effects on heritage assets – which are considered in ES chapter 8 [APP-031].

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		use of existing historic landscape information, and collaborate with historic environment specialists'; and paras. 5.20 to 24, which deal with landscape value, give examples of heritage-related landscape receptors that should be considered in the assessment.	
Paragraph 3.2.66 to 3.2.70	Cultural Heritage	Whilst doing the fieldwork for the assessments, I noticed many very visible man-made features in the landscape which in my opinion are highly likely to be medieval in origin, especially as several are associated with both designated and non-designated medieval heritage assets, including the scheduled motte and bailey castle at Bishopton.	LiDAR analysis has been undertaken as part of the cultural heritage assessment which has identified a number of areas of ridge and furrow which are recorded within ES Chapter 8: Cultural Heritage and Archaeology [APP-031] with impacts and requisite mitigation set out in paragraph 8.10.5.
		I suggest that some are considered during the ExA's site visits.  For example, just west of Bishopton, a lane called Folly Bank runs north — south, c. 400m west of the castle (scheduled area). In the field east of the lane, ridge-and-furrow is visible (it can be seen on Google Earth as well as LIDAR, the latter showing other ridge-and-furrow close by), along with what appear to be man-made level changes.	The Applicant notes the consultant's identification of a possible archaeological feature and will undertake further research to determine its provenance, if possible, and provide an updated reply at Deadline 4.
		On the west side of the lane there is a deep ditch with a steep bank rising to the field (the southwestern part of Area F, where panels are proposed). To me, this looks like a typical medieval deer park boundary. It would be interesting to know if that is the case.  Other medieval landscape features abound at Area A: these are described in more detail in Section 4.2.	

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Paragraph 3.2.71	Landscape and visual	In the Applicant's LVIA, para. 7.7.15 states that 'Landscape designations within the study area and scope of assessment include locally designated historic parklands within Darlington Those within the 3km study area are shown on Figure 7.1 and identified in Table 7-5'; however, there is very little description or analysis of this receptor to explain any contribution it makes to the area's character (and visual amenity), and how such qualities may be affected.	As shown by Figure 7.1 [APP-063] only one of these lies within the study area at Coatham Mundeville. This designation is referred to in considering the sensitivity of Darlington 5 Upper Skerne Valley and is one of the factors contributing to the identification of that LCA as being of Regional Value at Appendix 7.5 to the ES paragraph 2 [APP-136].
Paragraph 3.2.72	Landscape and visual	In addition, nor did the LVIA consider natural heritage, or biodiversity. However, loss or erosion of habitats can lead to adverse effects on character and appearance. As noted at GLVIA3 para. 3.22, development may result in 'alterations to a drainage regime which might change the vegetation downstream with consequences for the landscape'. Changes to landscape features, elements and landcover can also result in changes to these habitats and the species of flora and fauna they support. Thus, landscape and ecological consultants should also work in close collaboration. The baseline information which needs to be gathered and considered in landscape assessments is set out in the guidance; the list includes 'literature on wildlife' such as relevant NCA profiles, Biodiversity Action Plans, management plans, and habitat / other surveys.	As set out in Appendix 7.3 of the ES [APP-134], the LVIA considers the contribution that natural heritage makes to landscape character and value. It is not the function of LVIA to consider effects on ecology or to undertake ecology surveys. These matters are considered in ES Chapter 6 Biodiversity[APP-029].
Paragraph 3.2.73 to 3.2.79	Ecology		The Applicant has no comment on these sections other than to confirm, as referenced in these paragraphs,, the

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			Applicant has considered Great Crested Newts, otters and water vole in ES Chapter 6 Biodiversity [APP-029].
Paragraph 3.2.80 to 3.2.81	Hydrology	In addition, the large pond adjacent to the site mentioned above, where newts, water voles and otters are understood to be present, lies at the foot of the slope on which panels would be located. It is important to note that no formal infiltration sustainable drainage systems (SuDS) are proposed be installed as part of the drainage strategy for this development (see for example item 1 in Table 10-1 of the Applicant's Hydrology and Flood Risk report (ES Chapter 10)).  Evidently, without robust measures in place (the various effects of which would need to be assessed), it is highly likely that during construction, interim and decommissioning works, runoff from this part of the site (which is a large arable field) could give rise to significant adverse effects on the pond and associated species and habitats, bringing large quantities of silt and a wide variety of potentially polluting substances. There is also concern about runoff from panels during operation — see Section 4.2.	The pond is about 10m from site boundary and 20m from the perimeter fence. The outline CEMP [APP-110] makes the following commitment "As identified in ES Chapter 10 Hydrology and Flood Risk [APP-033], a Construction Surface Water Management Plan (CSWMP) would be produced prior to construction. This document would ensure site wide management of rainfall runoff, site drainage, surface water and groundwater including monitoring requirements during construction." The CSWMP would include provision of vegetated buffers around the works to filter surface water run-off in conjunction with diversion swales and further measures as necessary to control silt pollution and protect local features.  The outline CEMP also describes the role of the Environmental Clerk of Works to "oversee the management of, and provide advice about, environmental and ecological risks during construction including for example, management of protected species, surface water management, pollution, air quality and noise."  The outline Pollution and Spillage Response Plan [APP-113] also deals the procedures to be adopted by the contractor during construction to minimise the risk of pollution incidents, to be developed into a construction stage Pollution and Spillage Response Plan.
Paragraph 3.2.82	Landscape and visual	As well as heritage and biodiversity, the LVIA did not adequately consider recreation: the area's landscapes provide a highly-valued recreational resource which is well-used not only by the local communities, but also	The LVIA considers visual effects on recreational receptors. GLVIA3 covers 'people engaged in recreation' under the heading of 'Visual receptors' at section 6.13-6.15. It is not the function of LVIA to consider other aspects of

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		visitors. This is due to factors such as high levels of aesthetic and perceptual qualities, including scenic beauty, tranquillity, time depth, small, sleepy villages, and the network of lightly-trafficked lanes and public rights of way that connect them.	the recreational experience. Effects on access and recreation are considered in ES Chapter 9 Land Use and Visual [APP-032].
Paragraph 3.2.83	Landscape and visual	Some of the excluded landscape features / qualities / receptors such as those mentioned above are highly-valued, and make important contributions to landscape character, visual, and recreational amenity (parts of the proposed construction routes to Area A, on the west side of the site, coincide with the route of 'one of the best walks in Britain' — see Section 6).	The Applicant does not consider that any of the aspects (i.e. landscape features / qualities / receptors) which are relevant to LVIA mentioned by Ms Tinkler in the preceding sections of her representation have been omitted from consideration in the ES LVIA chapter and supporting appendices.
Paragraphs 3.2.84 to 3.2.85	Landscape and visual		The Applicant has no comment on these sections.
Paragraph 3.2.86	Landscape and visual	My assessment considered several viewpoints and view routes which were not included in the LVIA, and also considered sequential visual effects, which the LVIA did not appear to factor in.	The LVIA [APP-030] sections 7.10.112-170 considers all views from routes within the study area, identifying where along each route views of the Proposed Development would arise and where they would not. This intrinsically identifies sequential effects without making any assumptions about which route someone may follow in travelling through the study area.
Paragraph 3.2.87- 3.2.88	Landscape and visual	I agree with the LVIA's inclusion of locally-designated historic parklands within Darlington, and also AHLVs within Durham (the Elstob AHLV is located c. 30m north of the Panel Area B, and the Bradbury, Preston and Mordon Carrs AHLV c. 1.1km north of Panel Area A).  However, there is very little information about / analysis of these receptors. Importantly, the Durham	The Applicant notes agreement on these points and considers that no further detail is required.

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		AHLVs are 'valued landscapes' in the context of NPPF para. 180 a)6 – see receptor sensitivity below.	
Paragraph 3.2.89 to 3.2.93	Landscape and visual	This section of the LVIA summarises the landscape and visual receptors identified at the baseline study stage, in Table 7-5.  LVIA para. 7.7.17 explains that 'Baseline description for receptors is provided within section 7.10 for ease of reference by setting out firstly the baseline and then the effects for each receptor'.  However, the LVIA does not explain the next stage in the LVIA process, which is that once the baseline studies are complete, the findings are analysed, then judgements are made about the levels of sensitivity of the landscape and visual receptors (sensitivity levels being a combination of levels of a) value, and b) susceptibility). For ease of reference, this is normally set out in a table, showing each receptor's level of value, susceptibility to change, and sensitivity, with justification provided in the LVIA text, but here, the LVIA tables only set out levels of sensitivity. This makes it difficult to establish the justification for the conclusions.  A full tabulated summary would have been helpful, especially as not only is the relevant information difficult to find in the LVIA report, but also, other relevant information is contained in other documents, for example ES Appendix 7.3 Landscape and Settlement Sensitivity Assessment, and Appendix 7.5 Non-significant effects.	The methodology set out within ES Appendix 7.1 [APP-132] provides a description of how sensitivity judgements are made at paragraphs 15-19 (for landscape receptors) and 27-30 (for visual receptors).  A detailed, tabulated analysis of landscape value and susceptibility, broken down by individual factors is provided in ES Appendix 7.3 [APP-134] for the host landscape character areas and villages.  Sensitivity judgements for individual receptors receiving significant effects are provided in Section 7.10 of the ES. For landscape receptors where a more detailed sensitivity analysis has been undertaken, a summary is provided and Appendix 7.3 is referred to. For other receptors, the basis of the judgment is summarised.  For individual receptors not receiving significant effects the assessment is provided in Appendix 7.5 [APP-036].

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		It is important to know on what basis sensitivity judgements were made, as there is a big difference between landscapes of High value and Low susceptibility, and those of Moderate value and Moderate susceptibility, both of which would normally be categorised as Moderate sensitivity.	
Paragraph 3.2.94 to 3.2.95	Landscape and visual	Another issue is that levels of value and susceptibility are set out on a three-point scale (High, Medium, Low). As mentioned above, for a project of this nature and scale, I do not agree with the use of a three-point scale.	As can be seen in Appendix 7.3 [APP-134], in practice the LVIA uses more than three levels for all of these judgements, with intermediate levels being used to allow differentiation – effectively creating a five-point scale for all three criteria.
		Three-point scales are often used for high-level / strategic assessments, especially where the geographical extent of the study area is large, but the High — Medium — Low range does not allow enough granular differentiation between landscapes. For example, if the High level is reserved for nationally-/ regionally-designated landscapes, and Low for very poor-quality landscapes, then Medium must cover the majority of the landscapes in the country. Of course, categories can be split (eg High — Medium), but the LVIA's value criteria are very limited, so not very helpful for making value judgements (for comparison, see Tables 1 and 2 in Appendix CT-A; I use a five-point scale ranging from Very High to Very Low, with Moderate in the middle).	For example, the character of Bishopton is judged to be of Regional/community value, the susceptibility of the character of Great Stainton is judged to be High/medium and the sensitivity of LCA7 Bishopton Vale is judged to be Medium/low.
Paragraph 3.2.96 to 3.2.103	Landscape and visual	Also, to me, it was not clear how the site had been treated as a landscape receptor.	While assessment of effects on the site character are often (but not always) provided in LVIAs, this practice is not

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		Table 7-5 sets out Receptors grouped by distance from nearest Panel Area, within a) 1km of the panels areas, and b) 3km.  The table notes that landscape character areas Darlington 6: Great Stainton Farmland and Darlington 7: Bishopton Vale are the 'host areas', ie some parts of the Application site lie within one, and some parts in another (see LVIA para. 7.7.10 and ES Figure 7.5 Landscape Receptors). However, the site itself is not identified as a separate receptor.  Then, in Section 7.10 Assessment of likely significant effects, the LVIA sets out effects on the 'The landscape fabric of the Panel Areas and substation site'.  Para. 7.10.1 explains that the site's landscape fabric 'consists of a mix of arable and pasture fields, typically of medium scale and separated by hedgerows. In places those hedgerows are sparse, and in others they also include trees'. In other words, what the LVIA calls 'landscape fabric' is essentially 'landscape elements'. The GLVIA3 glossary defines elements as 'Individual parts which make up the landscape, such as, for example, trees, hedges and buildings'. The LVIA did not note 'landscape features', which in a baseline context are defined in the GLVIA3 glossary as 'Particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skyline'. The site and its	required or recommended by guidance. GLVIA38 covers the identification of landscape receptors at paragraphs 5.33-5.47 and at no point in this section does it suggest that the development site should be considered as a landscape receptor. The ES does not provide an assessment of effects on the character of the Site as in the opinion of the assessor the site is a concept which only exists in the context of the Proposed Development. Without that proposal, people describing the landscape baseline and character would not pick out the fields which make up the Site as a distinct entity or area. On this basis, the Site is not a baseline landscape receptor in its own right. Effects on the character of the Site, including the direct effects, are included in the assessment of effects on the host landscape character areas (of which parts of the site form part) — as these are the locally recognised baseline landscape character receptors. This approach follows the recommendation at 5.33 of GLVIA3 that the LVIA baseline should "map, describe and illustrate the character of the landscape at an appropriate level of detail, covering both the wider study area and the site and its immediate surroundings, dividing it into Landscape Character Types and Areas as appropriate".

<sup>&</sup>lt;sup>8</sup> Landscape Institute and IEMA, Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013.

Document Reference	Topic	Summary and/or extract	RWE Response
Reference		contextual landscapes contain and display several prominent and eye-catching landscape features.  Para. 7.10.5 states that 'effects on landscape fabric inform the consideration of effects on landscape character': that is true, but as mentioned above, there are many other factors which inform such consideration (geology, soils, hydrology, quality, condition, aesthetic / perceptual qualities, landscape and visual functions, plant species and so on).  Furthermore, the LVIA appears only to have assessed effects on a) the landscape fabric of the site, and b) the landscape character areas beyond the site boundaries, but not on the overall character and qualities of the site. This is very important because most of the effects on the character of the site (and the construction route if not within the site boundary / order limits) would be direct, whereas effects on character beyond the site are almost always indirect.  The above and other matters relating to the LVIA method are discussed further in the following sections where relevant.	
Paragraph 3.2.104 and at subsequent sections – reporting of effects identified in the ES	Landscape and visual	The LVIA concludes (in ES Appendix 7.5 Nonsignificant effects) that the sensitivity of the National Character Area (NCA) within which the site lies (NCA 23 Tees Lowlands) is <b>Low to Medium</b> .	Where Ms Tinkler purports to be setting out assessments from the ES they are consistently mischaracterised as follows:  Intermediate judgements - The ES always presents intermediate judgements with the higher judgement first – i.e. as Medium/low, not as reversed and separated by the word 'to' – e.g. 'Low to Medium' as Ms Tinkler presents them. The reason the ES takes this approach is to ensure that the more important (higher) portion of the judgement

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			is brought more prominently to the attention of the reader. No reason is provided in Ms Tinkler's representation for amending the ES assessments in this way.  Ms Tinkler translates the ES judgements for value to 'Low', Medium' and High' but these translations are not accepted by the Applicant. The ratings used in the ES are 'National, 'Regional' and 'Community' (and intermediate levels) as shown in the table at paragraph 19 of ES Appendix 7.1 and have been selected to describe "the relative value or importance attached to different landscapes by society on account of their landscape qualities" (LI TGN 02/21 Assessing landscape value outside national designations, 'paragraph 02/21). At no point does the ES describe any landscape as being of low value.  These mischaracterisations of the ES findings occur throughout Ms Tinkler's representation and for brevity are
Paragraph 3.2.105 to 3.2.115	Landscape and visual	However, firstly, there is no explanation of which of the NCA's key characteristics are displayed / found on the site and within the study area, nor whether those which are present are typical, or good representations. Clearly, if they are good representations, the level of sensitivity will be higher. Secondly, as the local character areas which lie within NCA 23 will have similar characteristics / qualities to the NCA, it follows that in theory, the NCA's level of sensitivity should reflect that of the host local	not further responded to at every point which they arise.  These disagreements are noted. The Applicant assumes that sensitivity judgements for other landscape receptors are either not considered relevant by BVAG or are agreed.  Comments on individual receptors:  NCA 23 Tees Lowlands – it is not necessarily the case that the national character area would have the same sensitivity as the smaller areas within it as Ms Tinkler suggests. One would expect some variation within a national character area – which often contain many

<sup>999</sup> Landscape Institute, TGN 02/21 'Assessing Landscape Value Outside National Designations, 2021. Available at: <u>TGN 02-21: Assessing landscape value outside national designations - Landscape Institute</u>

Document 1 Reference	Торіс	Summary and/or extract	RWE Response
		character areas (in my opinion, Medium to High — see below).  The LVIA concludes that the sensitivity of Elstob AHLV is between Medium and High (Table 7- 13). It appears that this is based on High value, and Moderate susceptibility, although that is not clear, but this does highlight the problem with using three-point scales mentioned above. In my opinion, the AHLV's susceptibility is also High, so the level of sensitivity should be High.  Regarding the Application site, at para. 7.10.30, the LVIA concludes that the level of sensitivity of local character area 'Darlington: 6 Great Stainton Farmland (includes Panel Areas A-D and substation)' is Medium, so I assume that is also the level applied to the site. This is based on value being 'Community' level, ie Low, and susceptibility being Medium to High.  Notwithstanding the comments above about the use of a three-point scale, and the fact that the LVIA's value and susceptibility criteria are minimal, I agree that susceptibility is Medium — High, but I do not agree that the site is of Low value, it is at least Medium.  This is partly because the site is so large, its scale is more 'Regional' than 'Community', but also, as noted above, the LVIA relies on the published character assessments, as opposed to having surveyed and analysed the important localised variations in character that occur across the site, which are	local character areas, each of which will have varying sensitivities. In the ES [APP-136 paragraphs 14-17], NCA 23 is identified as having Medium/low sensitivity. This is the same sensitivity as LCA 7 Bishopton Vale which is one of its constituent areas and more closely matches the description of the wider NCA than the more rural and undulating LCAs to the west. It is noted that Ms Tinkler considers sensitivity to be Medium to High.  - Elstob AHLV – the sensitivity of this receptor is considered in Appendix 7.5 {APP-136} where a table considers the susceptibility and value of the special qualities for which it is designated to reach a judgement that it has a High/medium sensitivity. It is noted that Ms Tinkler considers sensitivity to be High.  - As set out in relation to 3.2.96-103 above, the ES provides no judgement on the sensitivity of the Site. Sections 3.2.106-3.2.108 bear no relationship to ES findings that the Applicant recognises.  - LCA7 Bishopton Vale – Appendix 7.3 to the ES [APP-134] provides analysis of most the factors listed at 3.2.111 in identifying this LCA as being of Medium/low sensitivity. The 'contribution that the contextual landscapes make to the setting of the heritage assets' is considered within the heritage assessment. That contribution is not determined by any sensitivity ascribed from a landscape character function, rather through detailed analysis of the significance of an asset and what contribution, if any, setting makes to that significance.

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		atypical of the host. In fact, the site displays many positive landscape qualities, and performs several important landscape functions (recreational resource, setting of heritage assets and so on).  At para. 7.10.39, the LVIA concludes that the level of sensitivity of 'Darlington: 7 Bishopton Vale (includes Panel Areas E and F)' is Low to Medium, and I assume that is the level applied to the site. This is based on value being 'Community' level, ie Low, and susceptibility being Medium.	
		The comments above about criteria, scale, variations, qualities and functions apply here, but due to Areas E and F's close proximity to Bishopton, the value of the some of the functions it performs is higher, in terms of a) the recreational resource, and b) i) the contribution that the heritage assets (Scheduled Monument, Conservation Area, listed buildings) make to both historic landscape character and the present-day landscapes, and also visual amenity; and ii) the contribution that the contextual landscapes make to the settings of the heritage assets.	
		Thus, value is at least Medium, and susceptibility is at least Medium — High.  Using the LVIA's criteria, my assessment concluded that the whole site's level of sensitivity is at least between Medium and High.	
Paragraph 3.2.114 to 3.2.115	Landscape and visual	LVIA para. 7.10.81 explains that 'The highest sensitivity [visual] receptors within the study area would be local residents and users of local recreational routes (who would have high	This disagreement is noted. The Applicant assumes that sensitivity judgements for other visual receptors are either not considered relevant by BVAG or are agreed.

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Reference		susceptibility) where views would be of at most Regional value (within locally designated landscapes), indicating High/medium sensitivity'.  I agree with this judgement — indeed, it is consistent with my conclusion that the site's level of sensitivity is between Medium and High, albeit for different reasons (I did not factor in the locally-designated	The LVIA (including at Table 7-13 of the ES which is referenced) does not identify views from local roads as being of Regional value as stated at 3.2.116.
		landscapes). In fact, the LVIA uses Medium to High sensitivity for many of the visual receptors.	
Paragraph 3.2.116 to 3.2.121	Landscape and visual	However, the LVIA judges the sensitivity of visual receptors travelling along 'rural roads' as being of Medium sensitivity, based on Regional (ie Medium) value, and Medium susceptibility (see LVIA Table 7-13). I agree with Medium value, but do not agree with Medium susceptibility.  In the LVIA Method (ES Appendix 7.1), the criteria for a Medium level of visual receptor susceptibility are 'Local road users and travellers on trains. People engaged in outdoor recreation with some appreciation of the landscape e.g. road cycling, nature conservation, golf and water based recreation'. I agree that many of these receptors would not necessarily be 'focussed on the appreciation of views', which is a criterion for High susceptibility receptors, since they would be driving / on trains / road cyclists. However, some people travelling in cars / other vehicles may be passengers who are unable to walk along the local roads due to illness or disability, for example, but for whom the experience of being out and about makes a highly important contribution to	The LVIA (including at Table 7-13 of the ES which is referenced) does not identify views from local roads as being of Regional value as stated at 3.2.116. As set out at section 7.10.112 of the ES for one such receptor group (and at 7.10.127, 7.10.143, 7.10.157 for the other groups of road users): "Views in this area are of Community Value. Road users would have a Medium susceptibility and Medium sensitivity to changes to views as the narrow roads are busy and there is limited opportunity to enjoy the views."  Where local roads may be safely used for recreation and are regularly used for that purpose (notably Mill Lane near Bishopton and the northern end of Salters Lane), this is reflected in the ES by their inclusion in a receptor group of High/medium sensitivity – the same as for other recreational routes. It is not considered by the Applicant that the sensitivity of all rural road users and routes should be increased to High/medium on the basis that some vehicle passengers may be focussed on enjoying views.

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		their mental and physical health and well-being, and quality of life: their attention is highly likely to be 'focussed on the appreciation of views'.	
		Also, the LVIA has not factored in the regular use and high value of the 'rural roads' / lanes as a recreational resource (for walking, running, horseriding, and leisure cycling in particular, especially with young children), not just for local residents, but also for communities within the wider area, and visitors from all around the country.	
		Many come specifically to enjoy the landscapes' high levels of aesthetic and perceptual qualities described above: parts of the local road network are very lightly-trafficked, so offer good recreational opportunities for people of all ages and abilities. For local residents, the recreational resource also makes an extremely important contribution to their health and well-being, and the quality of their lives.	
		Thus, I disagree that all users of the rural lanes should be categorised as Medium sensitivity visual receptors: in accordance with the LVIA's criteria, and adopting the worst-case scenario, they should be between Medium and High.	
Paragraph 3.2.122	Landscape and visual		The Applicant has no comment on this section.
Paragraphs 4.1.1 to 4.1.5	Landscape and visual		The Applicant has no comment on these sections.
Paragraph 4.2.1	Landscape and visual	[abridged given length, to specific points of RWE comment]:	A number of descriptions are provided here. As an overarching response, the Applicant refers to the

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Paragraphs 4.2.5 to 4.2.14 (excepting	General	The nature of the construction and decommissioning effects likely to arise and their causes are summarised below (see also previous and following sections for additional information):  ii. Extensive ground / engineering works.  iv. Uncharacteristic, modern, highly industrialising features and activities inserted into / occurring within deeply rural landscapes displaying high levels of aesthetic and perceptual qualities, including scenic beauty, tranquillity, time depth, small, sleepy villages, and the network of lightly-trafficked lanes and public rights of way that connect them.  x. Long-term adverse effects on soil structure and microbiology.	conclusions of the ES and the limited significant effects reported to occur during construction and decommissioning, as reported in ES Chapter 14 Summary [APP-037]. The Applicant therefore does not agree with the summary of effects provided in paragraph 4.2.1. Specifically, however the Applicant highlights disagreement with some of the numbered points for the following reasons:  ii) There are not extensive ground works associated with the Proposed Development.  iv) The Applicant would not describe the development as 'highly industrialising', nor the villages in the study area as 'sleepy'. The description of 'lightly trafficked lanes' is not applicable to most of the local roads in the study area.  x) As reported in ES Chapter 14 Summary [APP-037], there would be a significant beneficial effect on soil upon decommissioning.  The Applicant has no comment on these sections.
4.2.9) Paragraph 4.2.9	Landscape and visual	The south-western section comprises two square arable fields and half of a rectangular one (an example of an arbitrary boundary resulting in the disruption of characteristic field patterns, giving rise to adverse landscape and visual effects), and is covered by Works 1A, 2, 3, and 8. Work 8 is for the access into this part of the area, which would be off the south-western end of the track, just beyond the eastern end of Brafferton.	No aspect of the design is arbitrary. The set back of the solar panels from the village is in order to mitigate effects on views from homes and the character of the Braffteron village setting. As shown by ES Figure 2.20 (APP-058), the proposed boundary line matches the alignment of the adjacent field boundary to the east and the field size and shape created is not atypical of the character around the village which includes a number of small rectangular fields.

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Paragraph 4.2.15 to 4.2.16	Paragraph 4.2.15 to Traffic and	The relevant Works Plans (Drawing No. 2.2, Sheets 1 and 2 of 13) show that the access to the northeastern section of Area A North would be taken from the south-eastern corner of the south-western section of Area A North  However, it is not clear to me how the access between the two parts of Area A North could be achieved without extensive engineering works and the removal of many mature hedges and trees.	The Applicant clarifies that Ms Tinkler's understanding of the access in this area is incorrect. The vehicular access locations identified for the Proposed Development, including for Area A are established access locations. In this instance, the access to the south-western section of Area A North (as described by Ms Tinkler) would be via High House lane at the point shown on Sheet 3 of the Works Plans [AS-013]. This is an existing field access. Access to the north-eastern section of Area A North (as described by Ms Tinkler) would be achieved via the continuation of the use of the existing High House Lane, as it passes Lovesome Hill Farm.  High House Lane itself is excluded from the Order Limits, as the lane is owned by the landowner and RWE have rights to use the lane as part of the Option Agreement. It had been assumed that the landowner will upgrade the lane past Lovesome Hill Farm prior to construction and RWE
			would have used the upgraded lane.  HGV movements along High House Lane will be limited to delivery of BESS and inverters. Smaller vehicles will be used to transport piles and panels to the panel areas off High House Lane during construction.  The Applicant is seeking discussion with Darlington Borough Council (DBC) on visibility splay and vehicle
			tracking information on the access points. We therefore expect the suitability of all access locations to be agreed with DBC during Examination. The updated CTMP, to be produced following appointment of the Principal Contractor (PC), will confirm the vehicular access

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			arrangements and will need to be agreed with the Highway Authorities prior to commencement of construction.
Paragraph 4.2.17 to 4.2.18	General	The plans show that construction access between the south-western and north-eastern sections of Area A North would not be via the track: instead, it would follow the line of the track, on its northern side, through a swathe of wooded pasture, c.50m wide at the south-western end, and c.6m wide (between mature hedges) at the north-eastern end, where the proposed access would enter the north-eastern section of Area A North.	The Applicant clarifies, as above, that the access route would continue via the High House Lane and would therefore not impact upon the watercourse and wooded pasture/hedges.
		The watercourse mentioned above runs through the centre of this pasture, in a steeply-incised, well-wooded valley (marked with an arrow on the photos below; also, below the photos, there is a) 1:25,000 OS map extract (own licence) showing the line of the watercourse and the contours and b) an extract from Works Plan Drawing No.22 Sheet 1 of 13 showing the proposed route between the two parts of Area A North; and c) an extract from Google Earth of the same area, showing field patterns and landcover. The site area is marked on all of them.	
Paragraph 4.2.19	Landscape and visual	As well as having high landscape, visual, and recreational value, given its antiquity, and intactness / good condition, the track and its associated landscape features are likely to be of high biodiversity value, and potentially, high heritage value as well.	High House Lane is part of a network of old hedge-lined accessible lanes through the area. Views from much of the route are contained by the high hedges but are more open at the eastern end, and as set out in the ES are of Community value. Considering the enclosing vegetation, recreational use and historic role of the route it would be of no more than Regional/community value when considered as a landscape feature.

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Paragraphs 4.2.20 and 4.2.21	Cultural Heritage		The Applicant has no comments on this section.
Paragraph 4.2.22 and 4.2.26	Landscape and visual	I could not find any specific reference to the proposals for the proposed access to Area A North / effects arising from its construction in the LVIA (the LVIA did not include any viewpoints along High House Lane), nor in the Applicant's ecological or heritage assessments. Many of the trees which could potentially be lost are categorised as A and B (A being most valuable in arboricultural terms) in the Applicant's Arboricultural Impact Assessment (AIA) (ES Appendix 7.7).  Again, I was unable to find any detailed information about the proposed access, and neither consideration nor assessment of the specific effects likely to arise: as noted above, the LVIA did not include any viewpoints along High House Lane.	As stated above in relation to 4.2.15-18, the Applicant clarifies that Ms Tinkler has misunderstood the access arrangements in this location, in which an existing access is to be used, and does not require loss of trees.  No viewpoints were selected on High House Lane, as due to the enclosing vegetation, most of the route would have little or no visibility of the operational proposals. High House Lane is considered within the 'Routes and homes within 1km – between A167, Salters Lane, Lea Hall and Little Ketton Farm (includes Panel Area A)' receptor group at sections 7.10.112-126 of the ES [APP-030] including a specific consideration in Table 7-8 which identifies Large scale effects.
Paragraph 4.2.23 to 4.2.24	Landscape and visual	The works would not only result in damage to / loss of high-value landscape elements and features, they would also urbanise / industrialise this deeply rural, tranquil, and probably ancient, trackway.  Furthermore, as the public footpath along the track is well-used for recreational purposes, there is likely to be conflict between construction traffic / activities and footpath users: given the narrowness of the track, and blind bends / summits along it, there should be concerns for the users' safety.	As outlined above, the Applicant clarifies that Ms Tinkler has incorrectly understood the access proposals int his location. Works to High House Lane will involve upgrading the current heavily rutted mud track to a compacted gravel track assumed to be carried out by the landowner. It would not result in damage or loss to high-value landscape elements and features. Management of public rights of way during construction is secured via the outline PRoW Management Plan [APP-119].

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Paragraph 4.2.25 to 4.2.27	Landscape and visual	There also appear to be problems with achieving the proposed access into Area A South, without extensive and potentially highly damaging engineering and other works, and loss of mature, healthy and highly characteristic vegetation which is certainly of high landscape and visual value, and is likely to be of high biodiversity, and possibly, heritage value as well.  Again, I was unable to find any detailed information about the proposed access, and neither consideration nor assessment of the specific effects likely to arise: as noted above, the LVIA did not include any viewpoints along High House Lane.  The Works Plans show three proposed points of access and construction routes into Area A South (see also the OS map extract in the third access point description below):  i) The first is off High House Lane track, at the northern end of Area A South (Work 3: on right-hand side of extract from Works Plan Drawing No. 2.2 Sheet 3 of 13 above).  [Points A) to F) then describe more about this access and provides comment on its suitability]	The Applicant clarifies that there are two points of access to 'Area A South' as described by Ms Tinkler, not three. The two points of access, as shown by Sheet 3 of the Works Plans [AS-013] are the second and third access described by Ms Tinkler. These are described in section 6.2 of the CTMP [APP-112] as follows:  "During the construction phase, Panel Area A will be served by two existing access points. Access to the northern section of Panel Area A is via High House Lane (Brafferton). Access to the southern section of Panel Area A is via an unnamed farm track accessed via Aycliffe Lane/Brafferton Lane."  The access described is not part of the Proposed Development and therefore points A) to F) as raised by Ms Tinkler are not commented on further. The exception to this is to provide clarification on point e), which provides a photograph of two vehicles carrying abnormal loads. There are expected to be two abnormal loads required to deliver sub-station components to Panel Area C only. Panel Area C is accessed via the A66, A1150 and Bishopton Lane.  Abnormal loads will not access Panel Area A. The type of abnormal load is related to weight rather than size, and would not require the equipment depicted in the pictures in the submission.
Paragraph 4.2.27	Landscape and visual	(ii) The second proposed point of access and construction route into Area A South is via a track / public bridleway leading south from High House Lane where it runs through the centre of Brafferton village	The Applicant confirms that the access described by Ms Tinkler utilises an existing access and does not require works. This access uses the existing farm access tracks is not proposed to be the primary access during construction which would be via the unnamed farm track accessed via Aycliffe Lane/Brafferton Lane in order to minimise vehicle

Document Reference	Topic	Summary and/or extract	RWE Response
Reference		[Note: this section relates to a number of photographs. Only specific sections relevant to the RWE response are quoted here:]  c) Past the buildings, the track is unsurfaced. There are tight bends along it. Large construction vehicles	movements through the village. It would be used during operation when the main construction access down the unnamed farm track to the south of the village has been removed.  In relation to c) no vegetation is proposed for removal in
		may have difficulty navigating the bends: a swept path analysis should be carried out to determine whether any / how much vegetation removal would be required.  d)The bridleway is well-used by the local community, and there are fine views from the track, in an arc from	this area as shown by ES Appendix 7.7 [APP-138]; the access tracks use existing field gates and/or gaps in hedges as shown by ES Figure 2.3 [REP2-016]. The Applicant has undertaken visibility splay and vehicle tracking analysis, which it is intended to submit into Examination following discussion with DBC Highways. A request for a meeting with DBC Highways has been made.
		south west to south east, over the unsettled open rural landscapes beyond, some of which would be occupied by panel areas. The field in the foreground of the photo overleaf appears to be ridge-and-furrow — see LIDAR extract above	In relation to d) The impact on open views from the bridleway is illustrated by and assessed via viewpoint 5 in the ES [APP-071], Appendix 7.4 Viewpoint Analysis [APP-135] and Table 7-7 [APP-030], and considered within the 'Routes and homes within 1km – between A167, Salters Lane, Lea Hall and Little Ketton Farm (includes Panel Area A)'
		e) the LVIA assessed effects on views from the bridleway, at LVIA VP 2 (at the northwestern end where it joins High House Lane); and VP8 (where the bridleway enters the site on the western side of Area A South). Wirelines and photomontages are also provided (see ES Figure 7.9 Visualisations Viewpoints).	receptor group at sections 7.10.112-126 of the ES [APP-030] including a specific consideration in Table 7-8 which identifies Large scale effects.  In relation to e) The LVIA assessed effects on all of the visual receptors in the study area. As described above for High House Lane and the bridleway south of Brafferton. Viewpoints are used to inform and illustrate the assessment (as indicated by GLVIA3 paragraph 6.19) – they are not the
Paragraph 4.2.27	Landscape and visual	iii) The third proposed point of access and construction route into Area A South is via a track off the south	only locations assessed.  The Applicant confirms that the access described by Ms Tinkler is one of the two proposed accesses in this location. However, it is considered that the comments made by Ms

Document Reference	Topic	Summary and/or extract	RWE Response
Reference		side of Brafferton Lane, at the west end of the village, just before the lane crosses the railway  [Note: this section relates to a number of photographs and points A) to P) commenting on this access. Only specific sections relevant to the RWE response are quoted here:]  a) The LVIA did not specifically assess views along this route, and I could not find assessments of other effects arising from this proposal (highways and ecology, for example) in the Applicant's submissions.	Tinkler reflect an incorrect understanding of the proposals in this location. The access would utilise an existing access and track at the point of entrance, however a temporary access track would be constructed in parallel to the existing track, at the edge of the field that forms part of the Order Limits. Whilst this would require some works, including some works to existing hedgerow, works would not be made to the entire length of the existing track as described by Ms Tinkler. As such, many of the comments made in part A) to N) are not applicable. O) to P) are considered below. In relation to a) This right of way is considered within the 'Routes and homes within 1km – between A167, Salters Lane, Lea Hall and Little Ketton Farm (includes Panel Area A)' receptor group at sections 7.10.112-126 of the ES [APP-030] including a specific consideration in Table 7-8 which identifies Medium scale effects in winter, reducing to Medium/small in summer.  Access tracks in this location will be removed following construction. This is reflected in the Land Plans [AS-015] which show this as temporary land.
Paragraph 4.2.27	Hydrology	<ul> <li>(iii) O): Where the route has to cross open watercourses (or possibly, follow their route), presumably culverting would be required.</li> <li>P): Construction (and operational) effects on water quality arising from the scheme as a whole are a concern (see below), but here, where feasible at least, extensive mitigating measures would almost certainly be required.</li> </ul>	The access route in this location would cross a tributary of the River Skerne. The reference at paragraph 10.8.15 of ES Chapter 10 [APP-033] refers specifically to the two new proposed access crossings which would cross minor tributaries of the River Skerne and Little Stainton Brook. The exact design of these crossings will not be confirmed until the detailed design stage of the Proposed Development and following the appointment of a contractor team.  The approach to the design of new watercourse crossings is described in paragraph 2.6.38 of ES Chapter 2 The Proposed

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			Development [APP-025] as embedded mitigation. This confirms that the design of new watercourse crossings will be agreed with the Lead Local Flood Authority (LLFA) prior to construction and will be designed with regard to the CIRIA Culvert Design and Operation Guide. The design will ensure that the culvert will not increase erosion by having a buried invert so the natural bed formation remains in situ. With this embedded mitigation, the magnitude of impact would be negligible.
			Future iterations of the outline CEMP [APP-110] developed under Requirement 4 of the dDCO (Document Reference 3.1 Revision 2) would consider the final design solution for these crossings and would undergo consultation with the LPA and therefore the LLFA
			See comments below on paragraphs 4.2.49 – 4.2.88 in relation to water quality.
Paragraph 4.2.28 to 4.2.29	Landscape and visual	At para. 7.13.5, the LVIA concludes that 'Significant [adverse] visual effects would arise for users of public rights of way within 1km of the Panel Areas during the construction and operational stages, with the exception of changes to views from [other viewpoints / view routes, not the Brafferton ones].	The Applicant notes this agreement. Ms Tinkler refers to an 'interim' phase of the Proposed Development both here and elsewhere in her representation. The meaning of this is unclear.
		I agree: my assessment also concluded that for users of PRoWs, visual effec ts arising from the proposed access points and construction routes to Areas A North and South would be significant adverse, and not only during construction and operation, but during interim and decommissioning works as well.	

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Paragraph 4.2.30 to 4.2.31	Landscape and visual	Evidently, these significant adverse visual effects are the result of significant adverse effects on landscape character, arising from loss of / damage to vegetation, and urbanisation / industrialisation.  The works required to construct the access points and routes into Area A would not only result in damage to / loss of high-value landscape elements and features, they would also urbanise / industrialise deeply rural, tranquil, and probably ancient, trackways, which make such important contributions to these landscapes' positive aesthetic and perceptual qualities, which are enjoyed by so many.	As set out above, some of the concerns raised by Ms Tinkler relate to an incorrect understanding of the accesses, which the Applicant has sought to clarify in response. Works required to facilitate access are limited and would not in themselves give rise to significant effects on views. The identified significant effects relate primarily to close views of construction and decommissioning activity and/or diversions or restrictions on access giving rise to visual changes during these stages; and close views of the solar areas, and loss of some open views which would become enclosed by hedges during operation as set out at sections 7.10.112-126 of the ES [APP-030].
Paragraph 4.2.32 to 4.2.35	Traffic and transport	In addition, the construction traffic would be highly disruptive, and would cause conflict with regular road users especially along High House Lane where it runs through the centre of Brafferton.  As shown in the photos above, residents park their cars along both sides of the street. Also, people tend to walk along, and children play in, the middle of the street. The Village Hall on the green relies on onstreet parking, and it is regularly used, with classes on most nights of week, and village events held throughout the year. Four times a year, between April and August, sheep are driven into Brafferton and along High House Lane from fields to the south the BOAT / proposed access into the western part of Area A South.  Furthermore, the works would give rise to significant adverse effects on recreational / social amenity.	As set out above, some of the concerns raised by Ms Tinkler relate to an incorrect understanding of the accesses, which the Applicant has sought to clarify in response.  ES Chapter 9 Land Use and Socioeconomics [APP-029] assesses the effects of the Proposed Development on ProW and concludes there would be no significant effects. As set out in the Outline Public Rights of Way Management Plan [APP-119], measures to manage the safety and access of PRoW during construction would be agreed with the local planning authority prior to commencement.  In relation to management of construction traffic, the Applicant has prepared an Outline Construction Traffic Management Plan (CTMP) [APP-112] which details how the construction of the Proposed Development on the environment, local road network and local communities will be managed. The CTMP will be updated throughout all

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		Importantly, the PRoWs are well-used by the local communities and visitors for recreational purposes, so there is likely to be conflict between construction traffic / activities and PRoW users. Given the narrowness of some of the tracks, there should be concerns for the users' safety.	stages of the Proposed Development by an appointed contractor at the appropriate times.
Paragraph 4.2.36	Landscape and visual	As mentioned previously, sections of the proposed Area A construction routes coincide with the route of 'one of the best walks in Britain' – see Section 6. (Also 6.55-6.59)	The book referred to at 6.55 'Best walks in Britain' appears to be out of print. A 1995 leaflet produced by Darlington Borough Council (3Brafferton.pdf (alanbhutchinson.co.uk) describes and illustrates a route with the same name and route as described at 6.55-6.59.
			There are many publications purporting to select and describe the best walking routes in England and inclusion in such a publication may attract more people to that route. However, an out-of-print book and 1995 council leaflet are unlikely to result in a marked increase in visitors at present or in future. The route shown follows PRoW included in the 'Routes and homes within 1km – between A167, Salters Lane, Lea Hall and Little Ketton Farm (includes Panel Area A) visual receptor group, considered at 7.10.112-7.10.126 of the ES [APP-030].
Paragraph 4.2.37	General	I could not find assessments of other effects arising from these works in the Applicant's submissions; however, my own assessment concluded that they could potentially give rise to significant adverse effects on water quality (see below), biodiversity, and heritage.	As set out above, some of the concerns raised by Ms Tinkler relate to an incorrect understanding of the accesses, which the Applicant has sought to clarify in response.
Paragraph 4.2.38 to 4.2.41	Traffic and transport	During site visits, it is possible that the ExA has already noted and experienced the existing conditions along the proposed construction routes, and at the	The Applicant does not consider it likely that traffic associated with the construction of the Proposed Development would pose an additional maintenance burden,

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Reference		other places where access into the site is proposed — in particular, the very poor condition of the highway surface and the erosion and damage to roadside vegetation along Lime Lane, where a solar development (at Whinfield House, ref 21/00958/FUL) has been under construction for some time.  The same lack of detailed survey, analysis, consideration of cause and nature of effects, and assessment of effects noted for Area A above applies to the rest of the construction routes and access points.  Some of the proposed routes are along narrow, winding country lanes which are lightlytrafficked: as a result, they are enjoyed by local people and visitors alike, whether walking, running, cycling, riding, or driving, both for informal recreation and for getting to and from work, school, the shops, church family and friends, and so on. For many, these quiet lanes make an important contribution to their health and wellbeing, and the quality of their lives.  Certainly, large amounts of traffic would be generated during construction and decommissioning, for long periods of time. In fact, in my opinion, the Applicant's estimate of 'up to two years' for construction is over-optimistic.	or that HGV movements are to be considered extraordinary. However, the Applicant is willing to commit to undertaking pre-commencement condition surveys and regular inspections of the HGV routes to site. The Outline CTMP [APP-112] will be updated to include this requirement, alongside a commitment for the Principal Contractor to advise the local Highway Authority of any deterioration of the HGV routes attributable to the actions of the undertaker, and to resolve any damage either through payment of reasonable and proportionate compensation, or through acting as the Council's agent to rectify the highway directly. This is set out in the ES Errata and Management Plans Proposed Updates submitted at Deadline 2 (Document Reference 8.11).
Paragraphs 4.2.42 to 4.2.48	Traffic and transport		The Applicant has no comment on these sections.

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Paragraph 4.2.49 to 4.2.50	Hydrology	Regarding adverse effects on soil and water quality, in a letter from Gwent Wildlife Trust and Friends of the Gwent Levels, to Julie James, Minister for Climate Change dated the 14th of October 2022 (see Appendix CT-B), the authors set out the devastating adverse effects which arose during and / or soon after the construction of a solar development, especially on soil and water quality.  Paragraph 4.2.50: The effects on water quality are especially relevant here, as a) watercourses cross the site; b) there are several ponds adjacent / in close proximity to the site (as noted in Section 3.2, no SuDS are proposed, but runoff from the site during construction, interim works, and decommissioning could give rise to significant adverse effects on species and habitats, due to silt and a wide variety of potentially polluting substances); c) parts of the construction route, and parts of the site are prone to flooding / seasonally wet.	See comments above on paragraph 4.2.27 in relation to the outline CEMP and requirement for a Surface Water Management Plan and construction stage Pollution and Spillage Response Plan.  Section 4.4 of the FRA refers to seeding and maintaining vegetation under the panels to manage run-off. Maintaining vegetation in this way is anticipated to improve upon existing conditions where land is ploughed for arable farming purposes. This is secured via the outline LEMP [APP-118].
Paragraphs 4.2.51 to 4.2.55	Multiple		The Applicant has no comment on these sections.
Paragraph 4.2.56	Agricultural land	Regarding soils, according to a recent (March 2023) report by ADAS for the Welsh Government called The impact of solar photovoltaic (PV) sites on agricultural soils and land quality9 (see Appendix CT-C), construction works 'can negatively impact the flexibility of agricultural land, potentially lowering quality and ALC grade' (my emphasis).	The quote is taken from a section of the ADAS/Welsh Government report setting out a range of scenarios for potential impacts on agricultural land quality – it does not conclude that construction of solar farms will lower ALC grade as suggested. Instead, one of the findings of the report is that Soil Resource and Management Plans (SRMP) are key to understanding the soils present on site and setting the appropriate conditions for handling soils on a particular site. An Outline SRMP accompanies the DCO

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			application and will be developed further to site-specific SRMPs to avoid the potential effects set out in the ADAS/Welsh Government report.
Paragraph 4.2.57	Agricultural land	Indeed, the evidence demonstrates that solar development can and does cause considerable damage to soils, for example through compaction, disturbance and turbation (the mixing of soils / sediments) during construction, interim works, and decommissioning, and increased runoff and pollution during construction, operation and decommissioning. Some of the damage is likely to be irreversible — or at least, may take decades to recover from.	As reported in ES Chapter 9 Land Use and Socioeconomics [APP-029], it has been assessed that there would be a significant beneficial effect on soil upon decommissioning. See also the Applicant's response to paragraphs 4.2.67-88 below.
Paragraphs 4.2.58 to 4.2.66	Agricultural land		The Applicant has no comment on these sections.
Paragraphs 4.2.67 to 4.2.88	Agricultural land	relating to soil compaction, pollution and erosion (not replicated here due to length)	These paragraphs set out the potential damage to soils caused by compaction and summarise that the soils on site are likely to be highly adversely affected during construction due to their textures and arable use. This demonstrates the requirement to prepare site-specific soil resource management plans (SRMPs), especially to control the timing of construction operations, in order to avoid creating irreversible effects on soil structures. It should also be recalled that much of the panel areas are in arable use and cultivated regularly by heavy machinery but without the type of impacts arising from compaction described in these paragraphs, due mostly to the appropriate timing of cultivations and machinery work.  Similarly, the SRMP [APP-116] for the Proposed Development will set in place procedures for avoiding

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			pollution arising during construction and measures to avoid soil erosion during construction and operation.  The photos provided from appeal reference APP/D3315/A/13/2203242 show completely bare earth beneath panels, which is not proposed for Byers Gill Solar.
Paragraph 4.3.1	Landscape and visual	(i) – (xviii) (not replicated here due to length)	This section is mostly a summary of Section 4.2. Many points raised relate to topics other than LVIA – including glint and glare, heritage and recreation. Only points (i)-(iii), (vi), (viii)-(xiv) are directly relevant to landscape and visual matters and are dealt with above. However, where points are raised relating to other topics they are commented on below.
Paragraph 4.3.1	Cultural heritage	iv) Best practice guidance on assessing setting (Historic England's publication The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)) highlights the need to consider diurnal and seasonal changes. Often, seasonal changes manifest with views being more or less prominent in winter and summer (respectively), as trees and hedges in the landscape come into and out of leaf.  v) In this instance, considering the agricultural context of heritage assets at a landscape scale, particularly where the fields are largely arable, there is an obvious expectation for agricultural land to change with the seasons as fields are ploughed, sown, tended, and harvested throughout the course of the year. Indeed, in rural areas, such changes are often celebrated with seasonal festivals and events, as has been the tradition been for many hundreds of years.	It is not clear from these paragraphs which heritage assets the consultant is referring and there is no indication of how they have determined the significance of those assets and the contribution setting makes to that significance. The conflation between an LVIA assessment and heritage settings assessment should be avoided as while the disciplines are complimentary in some areas, they are defined by wholly separate legislative regimes and by entirely different industry standards and guidance. It should also be noted in reference to point (viii) that setting is not a heritage asset in and of itself. Impacts from a development are through a change in setting where that setting contributes to the significance of a heritage asset. That significance is determined through one or more of number of elements of which setting is only one of those elements.

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Reference		vi) Solar development of this type and at this scale not only obscures views of the land itself, and introduces alien, modern built form across a wide area, but also, establishes a static, sterile year-round appearance which is very different from the character of a dynamic agricultural landscape with its seasonal changes.  vii) This in turn will have notable adverse impacts on the settings of heritage assets which have their significance contributed to by an agricultural context in which they can be experienced and understood. This would extend as much to the brief periods of intense activity and noise associated with harvest as to the non-visual aspects — some perhaps much changed from traditional practice, but still an unmistakable part of the farming year.	
Paragraph 4.3.1	Cultural heritage	xv) In fact, there may not be any intervisibility between assets / landscapes / features, but a) there could be high levels of interinfluence / association between assets / landscapes / features which are not related to visibility, but to physical / cultural aspects / qualities; b) lack of intervisibility may be a modern phenomenon, with once-intended intervisibility now screened by vegetation; and c) screening vegetation may not be permanent.  xvi) Regarding heritage assets and their settings specifically, 'Setting' is defined in the NPPF as 'the	The Applicant's settings assessment has been carried out in line with all relevant guidelines including the cited Historic England guidance 'The Setting of heritage assets – Historic Environment Good Practice Advice in Planning: 3'. The Applicant would direct the consultant to paragraph 8.10.67 of ES Chapter 8: Cultural Heritage and Archaeology [AAP-031] which specifically notes a spatial and historic relationship between the Scheduled Motte and Bailey and the settlement at Bishopton.  A settings assessment is to be undertaken on the setting of the asset as it is now, with reference to how that setting has
		surroundings in which a heritage asset is experienced' (my emphasis). This is similar to the difference between character and views in LVIA, especially in	developed over time as is set out in GPA3 paragraph 8 which notes that 'settingcannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset' and that ' the

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		that in many heritage assessments (including, it would appear, the Applicant's) assume that by screening the proposed development in views to and from heritage assets, all harm disappears, when of course, that is not the case.  xvii) Historic England's Planning Note 3 explains that 'The extent and importance of setting is often expressed by reference to visual considerations.  Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each'.	surroundings of a heritage asset will change over time'. For example, the original historic setting of the Scheduled Motte and Bailey would have not featured the extensive, regular field boundaries present within the landscape today. These are the result of the late 18th and early 19th century enclosure process which dramatically altered the once open landscape as is noted within the settings assessment.  Each heritage asset has been assessed on their own merits in relation to their setting as it currently is and the change to that setting the development would make.
Paragraph 4.3.1	Landscape and visual	xix Tranquillity is a relevant consideration here, because the site and parts of the contextual landscapes benefit from this landscape quality, along with local residents and visitors.  a) Tranquillity is defined in the glossary of GLVIA3 as 'a state of calm and quietude associated with peace, considered to be a significant asset of landscape'.  b) Tranquillity is often assumed to be synonymous with 'lack of sound'; however, in landscape and visual	The description of tranquillity as it is understood in relation to landscape is set out in Landscape Institute Technical Information Note 01/17 10 (which is not guidance). That document summarises various strands of research and applications of that research. There is no requirement to assess effects on tranquillity, nor is the experience of tranquillity protected by relevant national planning policy (except in relation to Local Green Space). Noise, the presence of people and movement, and close views of development are regarded as detracting from tranquillity and

<sup>&</sup>lt;sup>10</sup> Landscape Institute. Technical Information Note 01/2017 'Tranquillity – An Overview', 2017. Available at: <u>Tranquillity-An-Overview.pdf</u> (landscapeinstitute.org)

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Reference		assessment, that is not the case. 'Tranquil areas' should not be confused with 'quiet areas', which are defined by the European Environmental Noise Directive (END; 2002/49/EC) as 'those areas delimited by national authorities that are undisturbed by noise from traffic, industry or recreational activities'.	these matters are considered in the ES via the Landscape and Visual, Noise and Transport chapters.
		c) In Wales, the definition of tranquillity that has been adopted by both Welsh Government (Welsh Government 2012) and Natural Resources Wales (NRW 2016a) is 'An untroubled state, which is peaceful, calm and free from unwanted disturbances. This can refer to a state of mind or a particular environment. Tranquillity can be measured in terms of the absence of unwanted intrusions, or by a balancing of positive and negative factors. These include the presence of nature, feeling safe, visually pleasing surroundings and a relaxing atmosphere' (my emphasis).	
		d) The LI's technical information note (TIN) 01/2017 on the subject10 (revised March 2017) was 'prepared for the purposes of providing an overview of what is understood by the term 'tranquillity' within the landscape profession and to inform any future discussions and actions on the topic'. The TIN — which was not referenced in the Applicant's LVIA — explains that 'There are clear links between landscape and tranquillity the interpretation of tranquillity is often linked to an association or engagement with the natural environment and it is	

Document Reference	Торіс	Summary and/or extract	RWE Response
Trefer effec		this interpretation that places the term within the realms of landscape related study and research'.	
		e) The TIN goes on to say that 'tranquillity cannot readily be defined as an environmental characteristic or quality as it is a state of mind that is being described and thus human perceptions as well as factual evidence must be considered in any studies relating to the term. Tranquillity is, in effect, an umbrella term used to refer to the effect of a range of environmental factors on our senses and our perception of a place'.	
		f) Natural England lists 'relative tranquillity' as one of six factors that contribute to natural beauty.	
		g) A 2001 survey commissioned by Defra cited tranquillity as the most commonly-mentioned reason why people visit the countryside.	
		h) Tranquillity is an important factor in why people visit certain places, and why they choose to live and / or work in them.	
		i) One of the most commonly-reported benefits of tranquillity is its ability to enhance a positive peaceful, state of mind: generally considered to contribute to enhancing people's quality of life.	
		j) Thus, even during the operational phase, when the site would not be as active / noisy as it would be during construction / decommissioning, there is no doubt that the proposed development would give rise to high levels of adverse effects on tranquillity.	

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Paragraphs 4.4.1 to 4.4.4	Pollution Risk/BESS		The Applicant has no comment on these sections.
Paragraph 4.4.5	Pollution Risk/BESS	I was unable to ascertain the exact numbers and locations of the BESS units. The General Arrangement Panel Area plans for Areas A — F (ES Figures 2.3 — 2.8) show pink rectangles where 'Battery Energy Storage Systems, inverters, switchgear, and spare containers' would be sited, but does not differentiate between them. ES Figure 2.11 Typical Access and Supporting Infrastructure Layout does differentiate between the different types of containers, but as it says, it is simply a 'typical' / indicative layout, which could be in any part of the site.	Plans showing the proposed number of BESS units were submitted per panel area at Deadline 2, see REP2-015 to REP2-021. The locations of BESS units within each panel area will reflect the figures, however the exact final location will not be determined until detailed design via approval under requirement 3 of the dDCO [REP2-029].
Paragraphs 4.4.6 to 4.4.20	Pollution Risk/BESS		The Applicant has no comment on these sections.
Paragraphs 4.4.20 to 4.4.24	Pollution Risk/BESS	These paragraphs raise concerns regarding BESS and groundwater pollution due to fire water (not replicated here, due to length and amount of quotation in section).	As set out in the Outline Battery Fire Safety Management Plan [APP-117] at paragraph 4.4.1: If a fire occurs within a container, an automated fire suppression system is triggered. Depending on the asset, this can be based on water sprinklers, a clean agent (aerosol), or a combination of both. RWE intention is to use an automatic clean agent rather than water-based system as this regarded as good practice for a number of reasons:  • Flooding a container with water will almost certainly destroy the electrical equipment within it and is not considered an appropriate solution for combatting electrical fires.
			<ul> <li>While the application of water is a straightforward way to reduce temperatures, this does not essentially remove the issue</li> </ul>

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			of thermal runaway and is not always a practicable solution as large volumes of water are required to suppress a thermal runaway fire, requiring large on-site water storage or fire hydrants.  If a container is flooded, there is a risk for contaminated water to leak into the surrounding area and cause contamination, this requires specific fire water containment to be installed and leads to increased costs and design complexities.
Paragraph 4.4.25	Pollution Risk/BESS	Another important point to note is that as far as I am aware, currently, lithium-ion battery units of the type that are likely to be used at the Application site have a lifetime of about eight years. Therefore, the units proposed at the Application site could need replacing up to five times during the 40-year operational period. Each container weighs around 19 tons. Thus the proposed development would generate around 22,800 tons of heavy-duty industrial waste, including 5,000 tons of toxic lithium chemicals.	ES Appendix 2.3 paragraph 1.11.6 [APP-107] states the anticipated replacement rates of infrastructure during operation to inform the quantity and types of waste during operation. The anticipated replacement rates were calculated using data provided directly by infrastructure manufacturers and based on the infrastructure forming the Proposed Development in order to identify the quantity of waste over its operational lifetime. This was based on the design proposed within the DCO application, the parameters of which are secured via the DCO in requirement 3. The assessment concludes the overall effect of the Proposed Development in relation to waste would be negligible.
Paragraphs 4.5.1 to 4.5.5	Agricultural land		Please see response to 4.2.56.
Paragraphs 4.5.2 to 4.5.6 and 4.5.8 to 4.5.9	Landscape and visual		The Applicant has no comment on these sections.
Paragraph 4.5.7	Landscape and visual	Para. 3.2.5 explains that the proposed 'low maintenance grassland beneath solar PV panel and legume rich herbal ley/wildflora mixes to margins and	Para 3.2.5 i) of the Outline LEMP [APP-118] is a more general overview of works as the purpose of this section is to describe the 'Design Objectives'. It does not purport to

		the state of the s
	between solar PV panel rows' would be 'managed with a late summer / autumn hay cut followed by grazing if required'. How hay-cutting could be achieved beneath the panels is not stated. Re grazing, see below.	provide the full grassland management prescriptions which are found later in Section 5 'Landscape Management' and more specifically 5.7 to 5.12. Sections 5.8 and 5.9 clarify that the hay cut applies to the legume ley/wildflora areas (not beneath panels) and does not apply to the low growing sward.
Agricultural land	However:  i) The arable land on the site is characterised by high fertility / nutrient-rich soils (para. 3.6 of the Applicant's Agricultural Land Classification and Soil Resources report (ES Appendix 9.1) states that across the majority of the site, the Agricultural Land Classification (ALC) is 3b, with small areas of 2 and 3a (the latter are categorised as Best and Most Versatile (BMV) land); however, this is disputed by BVAG and others, who consider that the ALC is likely to be higher than stated in some parts of the site).	Paragraph 3.6 of ES Appendix 9.1 [APP-150] does not state that the arable land on the site is characterised by high fertility/nutrient rich soils. It states out that "the main limitation to the agricultural land quality is soil wetness which primarily limits land to Subgrade 3b, with smaller areas of Subgrade 3a". Therefore, the majority of agricultural land is of moderate quality (grade 3b) with a small proportion of good quality (grade 3a). Appendix 1 of ES Appendix 9.1 sets out the laboratory analysis of soil samples from within the site, from which it can be seen that 7 of the 13 samples were Phosphorus Index 0 and two samples were Index 1 – these nutrient levels are ideal for establishing wildflower habitats.  The ALC survey of the site was carried out by very experienced soil surveyors according to the established ALC guidelines and criteria, and no reasons have been given to challenge its findings.
Landscape and visual	<ul> <li>ii) In order to establish successfully, wildflower meadows and species-rich grassland require low fertility / nutrient-poor soils.</li> <li>iii) It is not clear to me how this would be achieved. Would the topsoil be stripped and stored, or sold?</li> <li>iv) Even if the fertility of the soils was reduced, it</li> </ul>	The Applicant responds that:  ii) The outline LEMP [APP-118] acknowledges that soil nutrient levels should be reduced prior to the sowing of wildflora/legume mix, at para. 5.7.1.  iii) The LEMP states that an initial grass rich sward would be sown over the Order Limits and regularly cropped/removed
	land	achieved beneath the panels is not stated. Re grazing, see below.  Agricultural land  However:  i) The arable land on the site is characterised by high fertility / nutrient-rich soils (para. 3.6 of the Applicant's Agricultural Land Classification and Soil Resources report (ES Appendix 9.1) states that across the majority of the site, the Agricultural Land Classification (ALC) is 3b, with small areas of 2 and 3a (the latter are categorised as Best and Most Versatile (BMV) land); however, this is disputed by BVAG and others, who consider that the ALC is likely to be higher than stated in some parts of the site).  Landscape and visual  ii) In order to establish successfully, wildflower meadows and species-rich grassland require low fertility / nutrient-poor soils.  iii) It is not clear to me how this would be achieved.

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		sward to develop, and that assumes regular, careful maintenance and management.  v) Furthermore, it is now recognised that successful establishment of species-rich wildflower meadow does not occur under / around solar arrays. This is mainly due to shading, runoff, and form of use / management (if not grazed by sheep, herbicides are customarily used).  vi) For example, ecological consultants working on the proposed Mallard Pass solar development mentioned previously did not propose species-rich wildflower meadow / pasture within the solar array areas, as they recognised the problems of establishment. Instead, a standard six-species grass ley is proposed. The mixtures proposed to be sown on this Application site contain many more species, increasing biodiversity	scheme at para. 5.7.1. The grass rich sward has been designed specifically as a low growing and open sward ideally suited for the introduction of other wildflora/legume species. No stripping/storing of soils is required.  iv) As set out at para. 5.7.11 to 5.7.15 of the LEMP, suitable ground preparation and management techniques are essential for the establishment of the proposed grass sward, in particular to reduce nutrient levels and minimise the establishment of annual weeds. Following two years of establishment/nutrient reduction, the initially established grass rich sward would be overseeded with the various mixes as outlined in the LEMP at para. 5.7.5 to 5.7.8.  v) No wildflora is proposed beneath solar panels. The low growing grass sward will be sown/established prior to construction of solar panel arrays, hence this will remain beneath panel areas. A legume mix is proposed between panels — oversown into the established grass rich sward.  vi) Mallard Pass specified permanent grassland beneath the solar arrays consisting of Emorsgate Basic General Purpose Meadow Mixture EM1. The Mallard Pass LEMP is unclear as to whether this will be supplied as a grass only or grass with wildflora mix, however, assuming the former, the grass mix contains the same 5 grass species as that proposed for Byers Gill. In fact, the EM1 grass only mix would entirely fit the Byers Gill LEMP specification.
Paragraphs 4.5.10 (vii) – (ix) and 4.5.11 to 4.5.15	Agricultural land	Paragraphs 4.5.10 (vii) – (ix) and 4.5.11 to 4.5.15, in summary, concern the suitability of land to be returned to agriculture after decommissioning (not replicated in full due to length)	As reported in ES Chapter 9 Land Use and Socioeconomics [APP-029], there would be a significant beneficial effect on soil upon decommissioning. This would be a matter for the landowner but the purpose of the landscape scheme would be to return the soils in good condition, albeit with reduced

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			nutrient levels (which can in themselves be adjusted rapidly). The long-term benefits to soils on decommissioning are in improved soil structures and soil biota from not being cultivated every year.
Paragraphs 4.5.16 to 4.5.31	Biodiversity	Paragraphs 4.5.16 to 4.5.31 concern, in summary, the viability of sheep grazing (not replicated in full due to length)	Livestock such as sheep are able to graze amongst solar panels and this approach is used in many operational sites. Recognising this, the Outline LEMP [APP-112] includes management measures relating to the option of grazing, such as avoiding grazing in biodiversity enhancement areas during bird nesting season. It is not however, as stated at paragraph 4.5.31 a "form of management to achieve the Applicant's stated mitigation / management objectives."
Paragraph 4.6.1 to 4.6.2	Glint and glare	Despite the subject being of great relevance to the assessment of effects on landscape character and visual / other forms of amenity, the LVIA appears not to have considered the effects of glint and glare at all.  This section a) provides more information about the nature and magnitude of the effects which arise from glint and glare; and b) sets out my summary review of the Applicant's Solar Photovoltaic Glint and Glare Study (GGS) (ES Appendix 2.2), where relevant to landscape and visual effects.	People in public places may experience glint and/or glare as they move around and that would form part of the experience of views towards the solar farm and its appearance when seen. This is taken account of in assessing visual effects in the LVIA and there is no requirement to explicitly reference this or describe where and when it may arise. The detailed assessment of glint and glare is a separate technical matter, considered in ES Appendix 2.2 [APP 106], and responses in relation to that matter are provided below.
Paragraph 4.6.3	Glint and glare	Glint and glare are sometimes grouped under the term 'solar reflection', which is what causes them.  Glint is a momentary flash caused when sunlight hits a smooth, glassy surface such as water, or a solar panel. Glare is diffused light caused by the reflection of the sky on such surfaces; it is less intense than	In 4.6.3, the terms 'glint' and 'glare' have been defined by the Bishopton Villages Action Group. There is no reference for where these definitions have been sourced from. It is recommended to follow the definitions in section 1.3 of the ES Appendix 2.2 [APP 106] prepared by Pager Power, which are aligned with those presented at paragraph 3.10.93 of the

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		glint, but the effect may be experienced continuously for long periods throughout the day.	NPS for Renewable Energy Infrastructure (EN-3) and the FAA in the USA.
Paragraph 4.6.4	Glint and glare	According to a study called Understanding Emerging Impacts and Requirements Related to UtilityScale Solar Development (September 2016) by Argonne National Laboratory19, the glint and glare arising from solar panels is 'of unusual intensity and unique appearance' (my emphasis).	The available studies have measured the intensity of reflections from solar panels with respect to other naturally occurring and manmade surfaces. The results show that the reflections produced are of intensity similar to or less than those produced from still water and significantly less than reflections from glass and steel (SunPower, 2009, SunPower Solar Module Glare and Reflectance (appendix to Solargen Energy, 2010).
			This is stated in ES Appendix 2.2 [APP 106].
Paragraph 4.6.5	Glint and glare	Both phenomena are unpleasant / cause visual discomfort when viewed from relatively long distances, and are highly disturbing / disorientating when experienced at close quarters, especially when experienced regularly / for long periods of time. The effects can negatively affect the quality of people's lives, and their well-being. Furthermore, in very close proximity, there is the potential for eye-damage (see below).	It is agreed that glint and glare can be unpleasant, cause visual discomfort and be disturbing/disorienting in certain conditions.
			With regard to the potential for eye-damage the following extract is taken from Forgesolar's help section, and is referenced from Ho, C. K., Ghanbari, C. M., and Diver, R. B., 2011, "Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation", ASME J. Sol. Energy Eng., 133.
			"The ocular impact of solar glare is quantified into three categories (Ho, 2011):
			Green - low potential to cause after-image (flash blindness)
			Yellow - potential to cause temporary after-image
			Red - potential to cause retinal burn (permanent eye damage)

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Reference			These categories assume a typical blink response in the observer.  Note that retinal burn is typically not possible for PV glare since PV modules do not focus reflected sunlight."  The Applicant is not aware of any modelling results for PV producing red glare, i.e. glare with the potential to cause ocular damage.
Paragraphs 4.6.6 to 4.6.14	Glint and glare		The Applicant has no comment on these sections.
Paragraph 4.6.15	Glint and glare	However, no distances for users of PRoWs and minor roads are provided, and effects on these receptors are not assessed.	The scope of the ES, including in relation to glint and glare was agreed through the EIA Scoping process as reported in the EIA Scoping Opinion [APP-121]. Significant impacts to users of surrounding public rights of way arising from glint and glare of PV developments are generally unlikely, due to the sensitivity of the receptor (in terms of amenity and safety) being concluded to be of low significance. This is because:  • The typical density of pedestrians/horse riders located at these points is low in a rural environment;  • Overall potential risks to safety relating to effects of glint and glare on PRoW users are low. Whilst Safety concerns are considered to a greater extent for horse riders and the possible event of being thrown by a scared animal, however the risk of this occurring due to glare from solar panels is considered to be small. This is supported by This is supported by the 'Advice on Solar Farms' document

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			produced by the British Horse Society (BHS) <sup>11</sup> , which states: "They [standard photovoltaic panels] are designed to absorb rather than reflect light for efficiency (reflected light is wasted energy) and although the amount of reflection varies with the component materials and the angle, the incidence of glare or dazzle is very low compared with glass and will not be uniform throughout a period of sunlight, assuming that the panel is static. Any reflection is unlikely to be a direct problem to horses, riders or carriage-drivers because of the angles and distances involved."
			<ul> <li>Glint and glare effects towards an observer are transient, and time and location sensitive whereby a pedestrian/horse rider could move beyond the solar reflection zone with ease with little impact upon safety or amenity;</li> </ul>
			<ul> <li>Any observable solar reflection towards an observer/horse rider would be of similar intensity to those experienced whilst navigating the natural and built environment on a regular basis (e.g. bodies of water), and less intense than reflections from glass and other common outdoor surfaces.</li> </ul>
			Overall, no significant impact on observers/equestrians using the surrounding public rights of way/bridleways is predicted and therefore further technical glint and glare modelling was not required.

<sup>11</sup> BHS (undated) 'Advice on solar farms near routes used by equestrians (solar-0424.pdf (bhs.org.uk)

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			Similarly, further technical glint and glare modelling was not recommended for local roads, where traffic densities and speed limits are likely to be relatively low. Any solar reflections from the Proposed Development that are experienced by a road user along a local road would be considered low impact in the worst case in accordance with the guidance presented in Appendix D of ES Appendix 2.2 [APP 106]. This methodology is in accordance with Pager Power's established glint and glare guidance, and this has been accepted on the majority of the previous solar projects Pager Power have worked on in the UK, including other large scale solar developments of significance.
Paragraph 4.6.16 to 4.6.17	Glint and glare	With regard to the 1km study area for receptors in dwellings in particular, in my opinion, it is not only arbitrary, but also highly unsatisfactory. Furthermore, neither the informal guidance nor the Applicant's glint and glare study justify the reason for it being limited to 1km.  Section 5.1.1 of the Applicant's glint and glare study simply explains that 'There is no formal guidance with regard to the maximum distance at which glint and glare should be assessed. From a technical perspective, there is no maximum distance for potential reflections. The significance of a reflection, however, decreases with distance because the proportion of an observer's field of vision that is taken up by the reflecting area diminishes as the separation distance increases. Terrain and shielding by vegetation are also more likely to obstruct an observer's view at longer distances. The above parameters and extensive experience over a significant	The 1km assessment area for ground-based receptors such as roads and dwellings is not arbitrary, rather, the parameters listed in Section 5.1.1 of the Glint and Glare Study [APP-106] are based on extensive experience of undertaking over more than 1400 glint and glare assessments which has allowed Pager Power to establish a 1km boundary as appropriate. This approach has been followed on the majority of the previous solar projects Pager Power have worked on in the UK, including some other large scale solar developments of significance.

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		number of glint and glare assessments undertaken show that consideration of receptors within 1km of panel areas is appropriate for glint and glare effects on roads and dwellings'.	
Paragraph 4.6.18 to 4.6.19	Glint and glare	It is also very important to note that the 1km boundary does not factor in i) the size of the proposed development, nor ii) the elevation of the viewpoint.  As part of my research into this matter, I spoke to a few experts in glint and glare assessment in the USA and Australia. I was advised by one that "the size of the solar farm has a direct effect on the glare impact. We use different study boundaries based on the size of the array (e.g., 500 m for small rooftop arrays, 2 km for small utility, 3-5 km for large utility), rather than a fixed limit for any size" (my emphasis). This confirms my opinion that 'size matters'.	The size of the assessment area is intrinsically linked with the size of the Proposed Development solar panel area by nature. The size of the solar panel area may affect the glare intensity predicted, but as glare intensity is not relevant for the impact classification of ground-based receptors such as roads and dwellings, the size of the solar panel area does not affect the appropriateness of the 1km boundary. Glare intensity is typically relevant to aviation receptors only, for ground-based receptors it is the duration and location of the glare relative to the observer that is significant. If the experts in USA and Australia could be named, this could be discussed further. In the absence of that, it is recommended to follow Pager Power's industry-leading glint and glare guidance.
Paragraph 4.6.20 to 4.6.21	Glint and glare	The informal guidance also notes — and my experience confirms — that depending on factors such as topography, and angle and elevation of the target and viewpoint, the adverse effects of glint and glare at public and private viewpoints can be experienced over long distances (note pilots are potentially affected at distances of up to <b>30km</b> from sites).  The informal guidance does not appear to state	The topography is accounted for in the geometric calculation, as terrain data is built into the model reported in the Glint and Glare Study [APP-106]. Terrain is also considered in the post-modelling analysis when determining impact classifications.
		whether elevation and angle of view should be considered in the assessments, but that is a highly relevant factor. North Somerset Council's revised Solar	

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		Voltaic Arrays Supplementary Planning Document (SPD) states that 'Particular consideration should be given to the glint and glare impact on properties that are higher up a slope than the solar development, as the angles involved mean that these are most likely to experience any glint and glare effects created'.	
Paragraph 4.6.22 to 4.6.26	Glint and glare		The Applicant has no comment on these sections.
Paragraph 4.6.27 to 4.6.3	Glint and glare	Not replicated in full due to length	This section is mainly focused on the fact that local roads and PROWs were not modelled. The reasoning for not modelling these is explained in the previous responses above, and in the glint and glare report (for roads).
Paragraph 4.6.37 to 4.6.38	Glint and glare	Of course, had the study included receptors using PRoWs and the local roads / lanes, it would no doubt have assumed — as it has with residential receptors — that existing vegetation that currently screens views would remain in place for the duration of the operation, which of course, is highly unlikely. As noted above, even if proposed screening eventually became effective for some receptors (which would take many years and cannot be guaranteed), it would not be effective for all receptors partly due to it filtering as opposed to fully screening, and partly due to the elevation of the viewpoint.  Evidently, the problems associated with the proposed screen planting also apply to the GGS. Thus, many receptors are likely to experience far higher levels of adverse glint and glare effects than the study predicts.	Within ES Appendix 2.2 [APP 106], screening that filters views is considered differently to screening that obstructs views where appropriate, however either can be significant and/or appropriate depending on the circumstances. Screening that filter views may not remove an impact but might sufficiently reduce an impact to low such that no further mitigation is recommended. Screening that obstructs views results in no impact.

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Paragraph 4.6.39	Glint and glare	Also as mentioned above, according to the Understanding Emerging Impacts and Requirements Related to Utility-Scale Solar Development study, 'Ocular damage from glare viewed at very short distances is possible' (my emphasis), although it goes on to say that this is 'primarily a concern for workers because public access to facilities is controlled'. However, in this case, some people would be walking adjacent / very close to the arrays. Evidently, for these and other neardistance receptors, the adverse glint and glare effects could be devastating.	Please see response to 4.6.5.
Paragraph 4.6.40 to 4.6.43	Glint and glare	Another important matter is that the glint and glare study does not mention heritage assets, and does not consider effects upon them; nor do glint and glare effects appear to have been factored in to the heritage assessment.  Again ironically, they are mentioned in the informal glint and glare guidance (para. 3.3), albeit only in the context of an extract from UK Planning Practice Guidance, 2015 Renewable and low carbon energy - What are the particular planning considerations that relate to large scale ground-mounted solar photovoltaic Farms?  This states, 'As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets.  Depending on their scale, design and prominence, a large scale solar farm within the setting of a	The settings assessment has been undertaken using the principle that it is the presence of development within the setting of an asset which can lead to a change in that setting. It is development as a whole which represents the maximum imposition into the landscape, rather than technical specifics like glint or glare.

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		heritage asset may cause substantial harm to the significance of the asset' (my emphasis).	
		Furthermore, page 19 of the Understanding Emerging Impacts and Requirements Related to Utility-Scale Solar Development study report explains that 'with solar facility glare, there can be effects on historic sites' (my emphasis).	
Paragraphs 4.7.1 to 4.7.44	General	4.7 Security fencing [paragraphs 4.7.1 to 4.7.44 are a detailed account of fencing and security considerations, and therefore not replicated in full here given the extent of RWE comment.]	Apart from the description and illustration of typical substation fencing at sections 4.7.2 and 4.7.4, this section contains speculation about, and illustrations of types of fencing which are not included as part of the Proposed Development.
			As shown by Figure 2.15 [APP-053], and set out at 2.3.38 of the ES [APP-025], the Proposed Development would include deer fencing around the solar areas (see also response to 4.7.45 below.
			Section 4.7.36 (page 72), contains unattributed 'CGIs' of solar farms. Care should be taken in interpreting these images as their source and purpose is not explained and they do not appear to be realistic images of a proposed development. The slope of the solar panels is unusually steep and the location of the security cameras is atypical, as are the signs on the fencing. In addition, the reflective, but cracked ground and sparse grass cover do not appear realistic. The inclusion of super-imposed people would not be expected in visualisations prepared to relevant standards

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			for LVIA (LI TGN 06/19 Visual Representation of Development Proposals) <sup>12</sup> .
Paragraphs 4.7.5	General	I raised this specific matter at a solar appeal inquiry last year, and as a result, the parties drew up a condition to deal with the eventuality of a change in specification post-approval. The draft condition was worded as follows: 'Notwithstanding any details submitted, no development (excluding demolition, tree protection works, groundworks/investigations) shall take place until details (including layout, materials, colour and finish) of [inter alia] fencing, boundary treatments and gates shall have been submitted to and approved in writing by the Local Planning Authority The details submitted shall be accompanied by an assessment of landscape, visual and ecological effects' (my emphasis)	The Applicant does not consider the proposed wording to be suitable for a DCO. Paragraph 2.6.18 of the ES [APP-025] confirm that deer fencing would be used, stating "Proposed perimeter fencing would be a deer fence, with a maximum height of 2m in order to present an appearance that is appropriate to the rural context"
Paragraph 4.8.2	General	i Both the means of connection from the proposed DNO substation in Area C to the main cable run that would connect the site to the main substation in Stockton, and the means of access from the highway to the Area C substation. The plans show what appears to be cabling and access along the same route between Bishopton Lane to the east and the substation, via an access track, along a field boundary, and then — peculiarly, but probably due to land-ownership constraints — all the way around the periphery of Square Wood to the substation. The	There are no overhead poles or pylons proposed to deliver the Proposed Development.

<sup>&</sup>lt;sup>12</sup> Landscape Institute, TGN 06/19 Visual Representation of Development Proposals, 2019. Available at: <u>Visualisation of development - Landscape Institute</u>

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		DNO substation, cables and access points / routes are 'truly' permanent features, in that they would remain post-decommissioning. Is there a requirement for new pylons or poles to carry overhead cables at any point?	
Paragraph 4.8.2 (ii)	General		The Applicant has no comment on this section.
Paragraph 4.8.2	Landscape and visual	iii The fact that several visual receptors which my assessment concluded would be significantly adversely affected by the proposals were either not identified / included in the LVIA, or, in the case of residential receptors, the LVIA concluded that they would not be adversely affected by the proposals, for example, assuming that they did not have views over the site, when in fact, they would. A few residents hope that the ExA will consider views from their properties (and also, features such as ponds) during the accompanied site visit.	(iii) the Applicant is unable to respond to this point as the representation provided by Ms Tinkler does not identify which visual receptors this refers to.
Paragraph 4.8.2	General	iv) Various adverse effects on Bishopton Redmarshall Primary School pupils and staff arising from the very close proximity of the site to the school: not only during construction, interim works, and decommissioning, but also during operation, if there is a BESS thermal runaway event. Concern about the new school car park proposed as part of the proposed development, in terms of location and effects arising.	As set out in section 2.23 of the Comments on Relevant Representations [REP1-004]: 'ES Chapter 9 Land use and Socioeconomics [APP-032] considers the effects of the Proposed Development on community facilities including Bishopton Redmarshall Primary School. It concludes that there would be no significant effects arising as a result of the Proposed Development.'  The provision of a car park for the school as part of the Proposed Development was included following engagement with the school, and has been taken into account in assessing any potential effects.

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			With regard to thermal runaway, the response to paragraphs 4.4.20 to 4.4.24 above sets out that the Outline Battery Fire Safety Management Plan [APP-117] considers and plans for thermal runaway. The development of this outline plan in detail is secured via requirement 11 of the draft DCO [REP2-029], to be developed in consultation with the Health and Safety Executive and the County Durham and Darlington Fire and Rescue Service.
Paragraph 4.8.2.	Landscape and visual	v) The poor quality of the Applicant's visualisations / computer-generated images (CGIs), which do not provide an accurate indication of what the panels in particular would actually look like when factoring in light conditions and glare — see Appendix CT-D.	(v) The appearance of the solar panels in photomontages in ES Figure 7.9 [APP-071-074] is rendered to realistically match the view direction, date, time and weather conditions in the photographs (winter and dull weather – with several of the views looking from the north towards the backs of panels). This point is acknowledged in Appendix CT-D paragraph 2.  The panels will look different on sunny days and from other directions and this was taken account of in the LVIA. There is no requirement in guidance to show a range of different weather conditions and time of day or year in visualisations; GLVIA3 13 only notes that "Seasonal effects on the photographs and the landscape they are illustrating are important and should be noted." (paragraph 8.15) – which is considered in Appendix 7.4 to the ES [APP-135] and that seasonal variations are taken account of in an LVIA – which is considered in the assessment of effects on receptors in Chapter 7 of the ES [APP-030].

 $<sup>^{13}</sup>$  Landscape Institute and IEMA, Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013.

Document Reference	Торіс	Summary and/or extract	RWE Response
Paragraph 4.8.2.	General	vi) Bird hazard management: a) I am not certain whether Teesside International Airport has responded to the Application in this regard. b) It relates to the requirement (under the Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002) to consider the effects of proposed developments on aviation safety, where such development could attract birds. c) Consideration must be given to sites within a range of 13km from civil or military aerodromes; in this case, Teesside International Airport lies c. 6.5km from the site. d) Mitigation measures may include bird-scaring systems eg cannons, and regularly cutting back berrying hedges which attract birds (an example of a Bird Hazard Management Plan (BHMP) produced for a solar development in Nottinghamshire that proposes such measures can be found at the link in the footnote below28). e) Evidently, this can have significant implications in terms of effects on ecology (and BNG calculations), visual amenity (especially where hedges are required for visual screening); and residential amenity (noise). f) I note that in its consultation response to the Whinfield House solar development application, Teesside International Airport raised aerodrome safeguarding objections, and requested the	The Applicant has not received any correspondence from Teeside International Airport or NATS as part of the application process. The Civil Aviation Authority were consulted at the Statutory Consultation stage but did not respond or engage.  The requirement under the Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002) applies to a Local Planning Authority, before granting planning permission.  This is not relevant in the case of the Proposed Development given it is an NSIP and the decision will therefore be issued by the SoS.  The Airport has been considered in relation to Glint and Glare [APP-106]. This illustrates the runway approaches (see Figure 60) and shows Approach 05 which is from the south west of the airport and Approach 23 which is from the north east of the airport. Neither runway approaches are from the direction of the Proposed Development.  In relation to Whinfield House Solar, the Applicant acknowledges the condition which was attached to the decision, requiring a 'scheme to deal with birds nesting in the solar arrays'.  Having reviewed the correspondence in relation to Whinfield, the concerns relate only to the potential for larger birds nesting within the arrays with the airport acknowledging that the enhancements proposed were aimed at small birds which are a low risk for the airport from a bird hazard point of view.

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Reference		production and implementation of a BHMP to overcome them.  g) The Whinfield House site lies c. 10.5km from the airport, 4km further than Byers Gill at its closest point, so it is likely that planes would be flying lower over Byers Gill as they depart from / arrive at the airport, so here, birds could pose a greater risk to aviation.	As with Whinfield, the mitigation proposed as part of the Proposed Development is not designed to attract the nesting of larger birds or gulls and the Applicant agrees with the Whinfield applicant that conditions within the arrays would not be attractive for gulls which seem to be the concern raised by the Airport.
Paragraphs 5.1 to 5.2	Landscape and visual		The Applicant has no further comment on these points – see response LSV 1.7 in the RWE response to ExQ1 [REP2-007].
Paragraph 5.3	Landscape and visual	As explained in Section 3.2 above, the LVIA made several erroneous assumptions about mitigation and enhancement / benefit, which contributed to levels of magnitude of effect being underestimated / underreported. An example is provided below, but in summary, the LVIA assumes that:  i) Direct effects on landscape character resulting from the change from a greenfield site (in this case, rural / agricultural) to a developed site (in this case, for industrial use) can be mitigated: they cannot.  ii) Levels of effects on character are determined by the degree of visibility of those changes: that is not the case. Development / change affects character even if there are no public or private viewpoints from which the development / change is visible.  iii) Levels of adverse effects on landscape character can be reduced by screening views: they cannot.  Screening only reduces levels of adverse effects on	i) The LVIA makes no such assumption and does not state this. The relevant assessments of operational effects for directly affected landscape character areas are provided at 7.10.33 and 7.10.44 of the ES [APP-030]. The points made in the ES regarding mitigation planting firstly relate to the parts of the LCAs which are not within the Site (i.e. those areas where the character would be affected as a result of views towards the Proposed Development and visibility would reduce as vegetation matures), and the direct benefits of mature planting within the Site. Neither of these are stated or assumed to reduce the direct adverse effects of the physical presence of the panels within parts of each host LCA. The assessment takes account of all of these effects and it is a measure of the importance of the direct adverse effects within the Site that neither of the host LCAs are deemed to experience reduced effects (in terms of magnitude or level of effect) during operation once vegetation is mature.

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		views. Levels of adverse visual effects can be reduced through measures such as screening / camouflage / visual / perceptual integration into the contextual landscape through appropriate planting etc.  iv) Measures which are proposed to mitigate adverse landscape and / or visual effects such as planting can be double-counted as landscape and / or visual enhancement / beneficial effect: they cannot (see below).  v) The planting proposed to screen views would be mature within 15 years of planting: that is not the case for woodland, and for hedges, depends on management regimes and other factors — see below.  vi) The existing and proposed planting would screen views all year round. However, in this part of the country, deciduous vegetation is leafless for at least half of the year, and unless very dense / containing a high percentage of evergreens, views are more likely	ii) The LVIA assumes that no effects requiring assessment would arise where there are no views of the Proposed Development. Potentially, effects on character could arise from the knowledge of a development's presence, however such effects would make no more than a negligible contribution to effects and would not alter the assessment.  iii) Where effects on character arise as a result of visibility of the development – altering the experience and perception of the character, such effects may be mitigated by planting to provide screening, as long as such planting is in itself 'in character'. It is considered that for the Proposed Development the proposed planting would be 'in character'. However, for most receptors the mitigation achieved would be insufficient to alter the outcome in terms of assessed effects. As set out in Table 7-13 (APP-030), the only landscape receptor where reduced effects are identified once planting is mature is the character of Bishopton village.  iv) See 5.7-5.19 below.
		to be filtered than screened.  vii) Once it had become effective, the existing and proposed planting would screen views for the duration of the operation: that is extremely unlikely—see below.  viii) The proposed landscape and visual mitigating measures would be characteristic / appropriate, and would not in themselves give rise to adverse landscape and visual effects. However, my own assessment found to the contrary: for example, there would be disruption of characteristic field patterns through the creation of new field boundaries on	v) The LVIA does not make this assumption. After a number of years the vegetation would have matured (i.e. would be more mature than when it had been planted) and that is the only sense in which the word is used in the LVIA Chapter [APP-030]. See also the response DBC 5.4.15-5.4.16 in the RWE response to LIRs [REP2-008] in relation to growth rates.  vi) The LVIA does not make this assumption. At relevant points in the assessment, seasonal variations in visibility are described and taken into account in assessing effects. This can be seen for example in Appendix 7.4 [APP-135], in the visualisations which illustrate winter views [APP-071 to 074]

	arbitrary lines, and double-hedged corridors along PRoWs / new permissive paths; and not only would some of the planting be uncharacteristic in these landscapes, but also, it would screen, and thus result in the loss of, highly-valued views.	and the assessment of effects, for example in Table 7-7 [APP-030] and at 7.10.103 and 7.10.108 of the ES. vii) The ES does assume this to be the case – see 5.20-5.27 below.  viii) The RWE response to the LIR (REP2-008) responds in relation to double-hedged routes and loss of open views due to proposed planting on page 21. Loss of open views is considered to be an adverse effect in the LVIA. A response on 'arbitrary boundaries' is provided at 4.2.19 above, and like that example most (but not all) of the new field boundaries arise in close proximity to settlements where setbacks have been made to mitigate effects. Smaller field sizes around villages are characteristic of both host landscape character areas.
Landscape and visual	Effectively, because the LVIA has erroneously assumed that landscape / visual mitigating measures can be double-counted as landscape / visual enhancements, it has overestimated levels of beneficial effects, and underestimated levels of adverse effects.  Paragraph 5.5 LVIA para. 7.10.33 is one example of where some of the above problems occur, in particular, a) the erroneous assumption that levels of effects on landscape character can be reduced through visual screening, and b) that screen planting proposed to mitigate adverse effects on views can also be counted as enhancement / benefit (explained further below).  Paragraph 5.6 The paragraph is in the Landscape	As noted above, the Applicant does not consider that 'erroneous assumptions' have been made in the LVIA. The extract from 7.10.33 of the ES provided at 5.6 of Ms Tinkler's representation is from the description of effects on 6 Great Stainton Farmland; what is omitted is the final sentence which indicates that "The magnitude of change would be Substantial and effects would be Major/moderate, Adverse and significant during all stages of operation." i.e. the mitigation and enhancement described, whilst taken account of, makes no measurable difference to the assessment outcome.
		Landscape and visual  Effectively, because the LVIA has erroneously assumed that landscape / visual mitigating measures can be double-counted as landscape / visual enhancements, it has overestimated levels of beneficial effects, and underestimated levels of adverse effects.  Paragraph 5.5 LVIA para. 7.10.33 is one example of where some of the above problems occur, in particular, a) the erroneous assumption that levels of effects on landscape character can be reduced through visual screening, and b) that screen planting proposed to mitigate adverse effects on views can also be counted as enhancement / benefit (explained further below).

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		Effects during operation. It states, ' there would be frequent, close views resulting in a sense of proximity and ubiquity of the Proposed Development when travelling through the area, except within the southernmost part of the character area where visibility would be largely screened. The solar farm would become one of the key characteristics of this area, and would markedly alter the undeveloped character and be seen in most of the more open and elevated views, giving rise to Large and Medium scale changes to character within a Wide extent of the character area. These effects would be widespread but not ubiquitous, and in the lower-lying and more vegetated valleys and hedge-lined lanes, visibility of the solar panels would mostly be screened by hedges, trees or terrain and the character would be unaffected. Mitigation planting in this character area would include reinforcement, reinstatement and the addition of hedgerows and tree lines, which would be both in keeping with the character and a minor improvement to the landscape condition. Over time they would also reduce visibility of the solar PV modules in views across the character area, reducing effects to an Intermediate extent of the character area'.	
Paragraph 5.7 to 5.19	Landscape and visual	In LVIA / LVA, it is very important to understand the difference between mitigation and enhancement / benefit. If they are confused / conflated, there are likely to be adverse implications for judgements made about levels of landscape and / or visual effects.	An LVIA is an assessment of effects, not an enumeration. Where an aspect of a proposal has detrimental impacts on multiple receptors, it is expected that all of the different types of detrimental effects will be identified. The approach is no different when considering neutral or positive effects. The intent or purpose of an aspect of the proposal (i.e.

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Reference		GLVIA3 defines mitigation as 'measures which are proposed to prevent, reduce and where possible offset any significant adverse effects (or to avoid, reduce and if possible remedy identified effects'), including landscape and visual effects' (para. 3.37). It defines enhancement as measures which are 'not specifically related to mitigation of adverse landscape and visual effects but means any proposals that seek to improve the landscape and/or visual amenity of the proposed development site and its wider setting beyond its baseline condition' (para. 3.39).  Unfortunately, the LVIA assumes that enhancements to landscape character would be derived from the screen planting which is proposed to reduce levels of adverse visual effects. In other words, it has double-counted visual mitigation measures as landscape enhancement measures. Yet it confirms throughout that the planting and management proposals are mitigation which is required to help screen views.  Also unfortunately, this is a common error in LVIA / LVIA, as GLVIA3 para. 3.39 explains: 'Enhancement is often referred to incorrectly as an outcome of proposed mitigation measures — for example where planting is proposed to mitigate landscape and/or visual effects but will also achieve an enhancement of the baseline condition of the landscape'.	mitigation of visual effects) does not mean it should only be considered in relation to that type of effect. If that were the case, it would logically follow that the landscape and visual effects of a noise fence do not need to be assessed – which would not be considered an appropriate approach by most LVIA practitioners.  The LVIA chapter [APP-030] describes all of the potentially significant effects (as required) - whether positive, neutral or adverse - of the various components of the Proposed Development (including planting) on all landscape and visual receptors. This is not 'double-counting'.  In relation to the quote from GLVIA3 3.39 <sup>14</sup> , at no point in the LVIA is any mitigation measure described as an enhancement. The LVIA notes incidental 'minor improvements in landscape condition' (e.g. in paragraph 7.10.33) as a result of proposed planting as part of describing effects – this is not the same as identifying the proposals as an enhancement.  See 5.3 (i) - (iii) in relation to planting and landscape character.

<sup>&</sup>lt;sup>14</sup> Landscape Institute and IEMA, Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013.

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		Indeed, in the recently-published LITGN-2024-01 Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3, para. 4(2) states, 'Care should be taken to ensure landscape and visual mitigation is not confused. For example, it does not necessarily follow that screening a development from view would reduce its landscape effects, such as those on character'.	
		Here, I would like to point out that these errors appear in EN-1 and EN-3.	
		EN-1 para. 5.10.5 states, 'Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation'.	
		EN-3 para. 2.10.131 states, 'Applicants should consider the potential to mitigate landscape and visual impacts through, for example, screening with native hedges, trees and woodlands'.	
		This was pointed out at the consultation stage but not addressed: I understand that the LI is looking into it.	
		Also very importantly, as explained above, it is not possible to mitigate the direct effects on character arising from the replacement of a greenfield site with a developed one.	
		Levels of other / indirect adverse effects on landscape character can be reduced by planting if it is appropriate / characteristic, for example to assist	

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		with the perception of integration into the receiving landscape. Landscape mitigation measures may also act as visual mitigation in the form of screening, for example, but either way, they are mitigation, not enhancement. Also, I understand that certain landscape and visual mitigation measures such as planting can be counted as biodiversity benefits, if appropriate.  This matter is important in decision-making, because it may be erroneously assumed that the benefits outweigh the harm.	
Paragraph 5.20 to 5.27	Landscape and visual	As explained previously, the problem with factoring in screening from existing and proposed vegetation at an early stage in the planning process is that over the lifetime of the proposed development (40 years' operation), it is highly likely that the baseline situation will change, with the loss of some vegetation, including mature woodlands, and the addition of other woods, trees and hedges.  This, combined with uncertainties about how long other vegetation such as hedges and tree belts would retain its current screening properties means that it is impossible to predict what the degree of screening by vegetation would be at any one point in time in the future.  In fact, these days, many practitioners including myself do not consider it safe, or best practice, to rely	As discussed in relation to section 3.2.54 above, it is not considered likely by the Applicant that vegetation patterns will change markedly within the LVIA study area during the operational life of the Proposed Development, and Ms Tinkler provides only anecdotal evidence for suggesting that they may do so.  UK Government guidance on 'Managing ash-dieback in England' <sup>15</sup> provides the following advice "The disease is causing widespread decline of ash trees in some areas and this is expected to continue. It is likely that the majority of our native ash trees will exhibit symptoms of ash dieback, but not all that do will die  Ash trees are common in woodland and non-woodland settings. They make up 12% of Great Britain's broadleaved woodland, and are often found in parks, gardens, hedgerows and roadside margins Local conditions will determine how ash trees are

<sup>&</sup>lt;sup>15</sup> Managing ash dieback in England - GOV.UK (www.gov.uk), (accessed 16/9/24)

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		on vegetation to screen views in the longer term, since there is no guarantee that it will remain in place (or in the case of new planting, establish at all).	affected by the disease. Trees in woodlands with high proportions of ash are likely to decline  There is some evidence that ash trees growing in open, less
		There are many reasons for this, including: soil type; temperature / climate change; water and nutrient availability; competition; maintenance and management regimes / quality of care; deliberate removal (authorised, for example forestry plantations, or unauthorised); accident; erosion, decline and death	humid locations such as streets and hedgerows may deteriorate more slowly or persist indefinitely, although it is not yet clear whether this will be a consistent pattern. Some trees with few symptoms could survive on these sites for many years, and a small proportion of trees may have a degree of genetic tolerance to the disease."
		from intensive landuse / pollution; inappropriate species selection for situation; wrong planting specification / inadequate soil preparation; and pests / diseases / pathogens (Ash dieback is prevalent in this area, as confirmed at LVIA para. 7.7.19 and noted during my fieldwork, and Ash is a key existing screening element in this case, both on and off the site).	ie Ash-dieback will continue to open up views in the study area, but not dramatically so given that Ash is not a key component of hedges (as a hedge plant rather than a tree), and woodlands also contain other species. While other plant pests and diseases are affecting other species and there may be new ones in future, the Applicant is not aware of any indications of future widespread vegetation loss or stunting of growth within the study area.
		Notwithstanding the above, it is still necessary to factor existing vegetation in to visual assessments, but it is important to note the nature of the vegetation — for example, is it a large block of ancient woodland with an assumed high degree of permanence (subject of course to the above factors), or a dense coniferous forestry plantation which is mature and ready for felling, or a thin, overgrown hedge which may be cut back or removed at any time?	See 5.3(v) above in relation to maturation of planting and the response DBC 5.4.15-5.4.16 in the RWE response to LIRs [REP2-008] in relation to growth rates.  At 5.26 the source and context of the photographs at section 5.26 is not clearly described and it is not possible to tell what the design intent was, what was planted and at what spacing and how it has been managed. These may also just be selected 'bad spots' in schemes with otherwise successful planting. The fact there are sometimes examples of poor design or management, or that planting sometimes
		Another matter to factor in is plant growth rates. The LVIA assumes that by year 15, the proposed screen planting would be 'mature'; however, whilst it is possible that new hedges would have developed a	fails even when both are done well should not be taken as a prediction that this is a likely outcome for the Proposed Development.

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		degree of maturity by then (but see photos below), that does not apply to trees, which are also proposed to screen views.	The Outline LEMP [APP-118] provides information about proposed planting and its management.
		The photographs below show screen planting at two different solar development sites, respectively c. five and eight years after planting. Also, here, the proposal is for hedges to be cut back regularly, to promote bushy growth (and potentially, to remove berrying material – see BHMP above).	
		Over-reliance on vegetation to screen views is likely to result in levels of adverse visual effects being underestimated.	
Paragraph 5.28 to 5.30	Landscape and visual	As well as the matters relating to mitigation above, there is also the question of whether additional mitigation, beyond that currently proposed could reduce levels of landscape and visual effects to more acceptable levels.	Ms Tinkler appears to agree with the Applicant that all available opportunities have been taken to mitigate significant adverse landscape and visual effects with the exception of either moving or removing panel areas.
		My assessment concluded that the majority of landscape and visual effects arising from the scheme as currently proposed could not be adequately mitigated, and as noted previously, the LVIA concludes that no 'essential' mitigation is either 'required' or 'available' for any of the landscape and visual receptors identified, therefore levels of 'residual effects remain as outlined'.	
Paragraph 5.31o 5.42	Landscape and visual		The Applicant has no comments on this section.
Paragraph 5.43 to 5.44	Landscape and visual	It may be possible to reduce levels of some of the adverse effects on character and visual / recreational	At 5.44 (and 6.27-6.29, 9.1-9.4) Ms Tinkler assumes that significant adverse effects must be unacceptable. This

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There ellee		/ residential amenity by adjusting the siting and layout of the scheme. I assume that any such adjustments would have to be within the Order limits, but consideration could be given to measures such as removing and / or relocating certain fields / panel areas.  However, a) I doubt that making material adjustments to siting / layout (and potentially, design), would be a straightforward or rapid exercise, and b) it is unlikely that this exercise would result in levels of all effects being made 'acceptable': many would remain significant adverse.	assumption is not supported by relevant national policy – see Page 25 of the RWE response to the LIRs [REP2-008].
Paragraph 5.45	Landscape and visual	Whilst stakeholder / public consultation may result in one or more preferred options being put forward (in my opinion, given their intimate knowledge of the area, it is very important that local residents were fully involved in the process), there would inevitably be a difference in approach between options which entail a) the removal of certain parts of the site currently proposed for development, thus reducing the amount of land covered by panels and associated infrastructure; and b) maintaining the amount of land covered by panels / infrastructure, but relocating the panels / infrastructure to parts of the site where they are not currently proposed.	As set out in section 1.3 of this document, the Applicant has met with BVAG since Deadline 2 and is seeking to arrange a focused meeting to discuss design of the Proposed Development.
Paragraph 5.46	Landscape and visual	It seems likely that for some receptors at least, removal of parts of the panel-covered land should result in a reduction in levels of adverse effects.  However, if panel-covered areas were to be relocated elsewhere on the site, the Applicant would need to	Ms Tinkler recognises the difficulties of moving panel areas – it may give rise to other environmental effects. See the RWE response to ExQ1 at LSV 1.7 in relation to the removal of panel areas [REP2-007].

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Reference		factor in the technical requirements / constraints relating to the location of the infrastructure, panels, cables, access and so on, and potentially, assess the environmental effects arising from the proposed adjustment, and / or update other studies / assessments.	
Paragraphs 6.1 to 6.7	Landscape and visual		The Applicant has no comments on this section.
Paragraph 6.8	Landscape and visual	The first point to make is that the latter part of 7.10.12 is an example of the LVIA having double-counted mitigation as enhancement: the hedgerow and tree planting are mitigating measures proposed to screen views, so do not result in beneficial effects on character.	See section 5.7-5.19 above in relation to 'double-counting'. It is unclear what Ms Tinkler means when she suggests that the first part of paragraph 7.10.12 indicates that the character and qualities of the site are being considered. In the ES 'landscape fabric' is used to encompass the physical features within the landscape as defined at paragraph 12 of Appendix 7.1 to the ES [APP-13]. The reference to the "presence of the solar farm" relates to it being physically present as a new component of the landscape fabric.
Paragraph 6.9 to 6.20	Landscape and visual	The second is that the first part of para. 7.10.12 seems to suggest that effects on the overall character and qualities of the site are being considered here, as opposed to just the very limited range of elements (or 'fabric') identified in the LVIA. Yet there is no analysis of the aspects of character which should be factored in (GLVIA3 para. 5.4 includes physical influences such as geology, soils, and hydrology; different types of vegetation; landscape patterns; historic landuses; aesthetic and perceptual aspects; and overall character — ie how all these combine).	See 3.2.96-103 above in relation to the assessment of effects on the character of the Site. Ms Tinkler's assessment of effects on the Site character at 6.18-6.20 is noted, but her attempt to extrapolate the effects that might have been identified if the LVIA had provided such an assessment at 6.16 is not agreed by the Applicant and at 6.17 Ms Tinkler is agreeing with her own extrapolation, not with an assessment provided or agreed with the Applicant.

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		The direct effects of the development on the site are not assessed in the LVIA, in terms of the change from	
		rural / agricultural to industrial which, as explained in	
		previous sections, cannot be mitigated. Nor are	
		indirect effects on the site assessed.	
		Under the heading Landscape and Settlement	
		Character, LVIA para. 7.10.27 explains that this	
		section sets out 'Effects for receptors which would be	
		significantly affected at any stage of the Proposed	
		Development, effects for host landscape character	
		areas, and effects on the character of the three	
		settlements requested by Darlington Borough Council	
		(Brafferton, Great Stainton and Bishopton)'.	
		However, effects are reported for the whole character	
		area, not the site. For example, para. 7.10 33 notes	
		that during operation, 'Panel Areas A, B, C and D	
		would physically occupy an Intermediate extent of	
		[host character area Darlington: 6 Great Stainton	
		Farmland], and there would be frequent, close views	
		resulting in a sense of proximity and ubiquity of the	
		Proposed Development when travelling through the	
		area, except within the southernmost part of the character area where visibility would be largely	
		screened. The solar farm would become one of the	
		key characteristics of this area, and would markedly	
		alter the undeveloped character and be seen in most	
		of the more open and elevated views, giving rise to	
		Large and Medium scale changes to character within	
		a Wide extent of the character area'.	
		Note the erroneous assumption that effects on	
		landscape character are reduced through visual	

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		screening, which, as explained previously, is not the case.  LVIA para. 7.13.1 concludes that 'Significant [adverse] effects would arise during operation on Darlington LCA 6 Great Stainton Farmland which would host Panel Areas A to D'.	
		Therefore, there would be direct significant adverse effects on the character of the site.	
		It must also be assumed that the overall level of direct effect on the site is higher than the level of indirect effect on the host character area beyond the site. The LVIA concludes that levels of indirect operational effects on Darlington: 6 Great Stainton Farmland would be Major – Moderate Adverse (significant). Therefore, the level of direct effect on this part of the site would be at least between Major – Moderate and Major Adverse.	
		In fact, this aligns with the findings of my own assessment.	
		I concluded that the site's level of landscape sensitivity is at least between Medium and High (based on the LVIA's criteria) (see Section 3.2).	
		Using the LVIA's criteria for levels of magnitude of effect in Plate 7-1 under para. 7.4.6 (which I found to be unsatisfactory — see those I normally use in Table 5, Appendix CT-A) I concluded that the level of magnitude would be Substantial.	
		According to the matrix in LVIA Table 7-4, the combination of a Medium – High sensitivity receptor and a Substantial level of magnitude results in a level	

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		of direct effect of between Major – Moderate and Major Adverse.	
Paragraphs 6.21 to 6.25	Landscape and visual		The Applicant has no comments on this section.
Paragraph 6.26	Landscape and visual	Regarding amenity, my understanding is that 'When planning permission is rejected on the grounds of loss of amenity, it means the proposed development will harm the amenity of another property, through the noise, overlooking, overshadowing, smells, light pollution, loss of daylight, loss of privacy, dust, vibration or late night activities. The planning authorities must support sustainable development. For this reason, when a proposed development poses a risk of loss of amenity of any type, the application is likely to be rejected' (my emphases) 30.	The quote provided by MS Tinkler is attributed to a Planning Consultancy website in the footnote, but the website appears to have now been removed.
Paragraphs 6.27 to 6.29	Landscape and visual	EN-1 para. 5.6.3 states that 'For energy NSIPs of the type covered by this NPS, some impact on amenity for local communities is likely to be unavoidable. The aim should be to keep impacts to a minimum, and at a level that is acceptable'.  NPPF paragraph 163 b) says that 'applications for renewable and low carbon development should be approved if its impacts are (or can be made) acceptable'.	See 5.28-5.46 above.
		In this case, the majority of the significant adverse landscape and visual effects are not, and could not be made, acceptable, and would remain significant	

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		for the 40-year duration of the operation – for many, that would be a lifetime.	
Paragraphs 6.30 to 6.69	Landscape and visual		This section provides wide ranging comments on residential amenity, potential effects on businesses, recreational amenity and safety. The Applicant does not consider that any part of this section is relevant to the consideration of effects on landscape character.  6.55-6.59 – see 4.2.36 above.
Paragraphs 6.1 to 6.69	Landscape and visual		The Applicant notes that apart from her comments in relation to some sensitivity judgements (see 3.2.104-113 above), Ms Tinkler identifies no disagreement with the assessment of effects on landscape receptors provided in the ES [APP-030].
Paragraph 6.30-6.69			The Applicant has no comments on this section.
Paragraph 7.1 to 7.6		Both the Applicant's LVIA and my own assessment concluded that for many visual receptors, levels of visual effects would be 'significant' adverse throughout the project lifetime (see LVIA Table 7- 12 Landscape and Visual impact assessment summary – Receptors receiving significant effects).	The Applicant notes that apart from her comments in relation to sensitivity of local road users (see 3.2.114-121 above), Ms Tinkler identifies no disagreement with the assessment of effects on visual receptors provided in the ES [APP-030].  In relation to paragraph 7.6 it should be noted that visits to
		As with landscape effects, it is hoped that the parties can agree about this at an early stage, thus reducing the amount of work involved.	private properties would only be relevant to the consideration of residential visual amenity and effects on private views.
		Given this project's nature and very large scale, the visual effects assessment process is complex, involving numerous viewpoints and view routes; consideration of each receptor and establishing the level of visual value and their susceptibility; making judgements about levels of magnitude of effect for	

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		each receptor at each viewpoint, factoring in mitigation and other matters; and, once the overall level of effect has been established, deciding whether or not the effect is 'significant'. Also, the assessment has to consider levels of visual effects during construction, operation, interim works, and decommissioning.	
		Thus, whilst there may not be agreement between the parties about the specifics in terms of levels of visual value, susceptibility, magnitude, and overall level of residual effect at each viewpoint (and it is probably unlikely that there would be agreement on all of them), it would surely save a great deal of Examination time if early on, agreement could be reached that on-site receptors and those within a certain distance would experience significant adverse residual visual effects for the lifetime of the project, and that broadly, levels of visual effects would reduce gradually with distance, unless intervisibility between the developed site and the wider landscape ceased abruptly, for example, along an upstanding ridgeline.	
		If it is not possible to reach agreement, then if necessary, I can provide the detailed findings of my visual effects assessment and that part of my LVIA review. Perhaps a Scott schedule could be produced and completed by all stakeholders who have expressed opinions about visual effects.  Also, it must be borne in mind that effects on their visual and other amenity are amongst the local communities' main concerns, and therefore they may wish to discuss / respond to these matters during the	

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		Examination, and some may appreciate it if, during the Accompanied Site Inspection (ASI), the ExA could visit a few private properties and look at the views of the site.	
Paragraph 8.1 to 8.7	Landscape and visual	As with landscape and visual effects, it is hoped that the parties can agree about this matter at an early stage, therefore I have not written up my cumulative assessment and review findings.	The Applicant notes that these are general comments and Ms Tinkler identifies no disagreement with the assessment of effects on cumulative effects provided in the ES [APP-030].
		Given that on its own, the proposed development would give rise to extensive significant adverse landscape, visual and other effects, in my opinion there can be no doubt that in combination with all the other existing and proposed solar developments within the rural parts of the study area, along with proposed projects of a similar industrialising nature and scale, the inter-project cumulative landscape, visual, and many other effects would be significant adverse, and extensive / widespread.	
		One of the most important matters to consider here are the adverse cumulative effects on the landscape's multitude of highly-valued functions.	
		For example, taking an overview of the potential situation in the wider landscape context, it becomes clear that the green rural open gap between Darlington, Newton Aycliffe and Stockton is under threat of partial coalescence resulting from the insertion of an industrial corridor through its heart.	
		Para. 2.13 of BVAG's May 2024 Relevant Representation report is as relevant to cumulative effects as it is to the effects arising from the	

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Reference		proposed development in isolation: 'The transformation of open countryside to an alien, industrial landscape would stretch over 30 miles between Darlington, and Newton Aycliffe, to Stockton, surrounding and dominating communities and villages which have been within their rural settings for centuries, and evolved with deep historical significance. This rural characteristic remains important to people's lives even more today. The application has failed to understand the perception and experience of the local community, and the major adverse impact on the health and wellbeing of the affected communities represented here.'  Another important matter for consideration is intraproject cumulative effects.  In particular, on their own, some effects may not be categorised as 'significant'; however, if such effects accumulate, in combination they may well become	
Paragraphs 9 to 9.26	General	'significant'.  Concluding remarks of submission.	The Applicant has no comment on the concluding section having responded to the points as raised in the body of the document.
Appendix CT-A	N/A	Tables of criteria and matrices for LVIA	This appendix is not used within the brief assessments provided in Ms Tinkler's representation. The only substantive reference to it is at 3.2.95.
Appendix CT-B	N/A	Letter from Friends of the Gwent Levels	The Applicant has no comments on this appendix and does not consider it relevant to this Application.

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Appendix CT-C	N/A	ADAS / Welsh Government 2020/21 Spoil Policy Evidence Programme	The Applicant has no comments on this appendix beyond those already made in reference to the main text of REP2-042.
Appendix CT-D Examples of CGIs	Landscape and visual	Images are provided along with comments on visualisations.	This appendix is briefly referred to at 4.8.2 (v) and at 1.1.25 in making reference to the quality of visualisations in the LVIA.
Appendix CT-D Examples of CGIs	Landscape and visual	The Applicant's LVIA's photomontages are more helpful than the wireframes in understanding some of the visual effects likely to arise from the proposed development; however:  i) Not all of the assessed views are the subject of photomontages: in my opinion, some of the key views of the developed site should be illustrated as photomontages, not wireframes.	The Applicant considers that the 'key views' have been selected for photomontages. Ms Tinkler does not identify in her representation any specific views that she considers should have had a photomontage provided where one has not been.
Appendix CT-D Examples of CGIs	Landscape and visual	ii) None of the photomontages show the visual effects of travelling along existing and / or proposed permissive PRoWs crossing the site through the proposed panel areas, where levels of adverse visual effects would be extremely high (see examples in Section 4.7 of main report).	Viewpoint 5 [APP-071] is an example of a viewpoint on a route passing through a Panel Area. Very close views are difficult to show realistically in photomontages prepared to relevant technical standards for LVIA (LI TGN 06/19 Visual Representation of Development Proposals <sup>16</sup> ) and given the proximity it is not considered that they would assist in appreciating the likely visual effects. Photomontages are most helpful where the role of vegetation in providing screening cannot be clearly appreciated from a wireline.

<sup>&</sup>lt;sup>16</sup> Landscape Institute, TGN 06/19 Visual Representation of Development Proposals, 2019. Available at: <u>Visualisation of development - Landscape Institute</u>

Document Reference	Topic	Summary and/or extract	RWE Response
			See 4.7 above in relation to the examples referred to in Ms Tinkler's representation.
Appendix CT-D Examples of CGIs	Landscape and visual	iii) The photomontages only appear to show the panels, not the other scheme elements (especially containers).	<ul> <li>All elements of the Proposed Development are shown in photomontages, although in many cases the containers would be screened by the solar panels. For example: <ul> <li>Viewpoint 17 [APP-072] shows containers in the photomontage (just above the sheep to the right hand side of 17a, and just above the fence at the centre-left of 17b).</li> <li>Viewpoint 19 [APP-073] includes the proposed substation.</li> <li>Viewpoint 24 [APP-073] includes the proposed fencing and CCTV cameras within panels Area F.</li> </ul> </li> </ul>
Appendix CT-D Examples of CGIs	Landscape and visual	<ul> <li>iv) The photomontages do not accurately reflect the reality of the future situation, partly because they do not show the correct colour and texture of the panels as they would appear under 'normal' weather / light conditions – the image is too flat and 'dull', and does not account for the effects of glint and glare (see Section 4.6).</li> <li>2) The problem is ensuring that the CGI shows the panels as they would appear in the light conditions as they were when the photograph for the CGI was taken. Ideally, photographs are taken, and CGIs produced, on cloudy and sunny days.</li> </ul>	See 4.8 above.
Appendix CT-D Examples of CGIs	Landscape and visual	3) DBC's landscape and visual LIR also identified this problem, and the report includes good illustrations of the variation of the effects of light on panels at an existing solar development, and I have added a few of	This is agreed by the Applicant.

Document Reference	Topic	Summary and/or extract	RWE Response
		my own, along with examples of CGIs produced for solar developments by way of comparison.	
Appendix CT-D Examples of CGIs	Landscape and visual	4 (i) and image 1	The Applicant has no comment on this section and image.
Appendix CT-D Examples of CGIs	Landscape and visual	4 (ii) and images 2-5	See Appendix CT-D 3 above.
Appendix CT-D Examples of CGIs	Landscape and visual	4 (iii) and images 6 and 7	These images relate to another site and proposal and have no relevance to the Proposed Development.
Appendix CT-D Examples of CGIs	Landscape and visual	4 (iv) and image 8	Aerial CGIs are of no relevance to LVIA matters.