Submission through NSIP Portal

23rd January 2025

The Examining Authority

Planning Inspectorate

Application by RWE Renewables UK Solar and Storage Limited for an Order Granting Development Consent for the Byers Gill Solar Project. PINS Reference No: EN010139.

The Examining Authority (ExA) invited all Interested Parties to provide submissions by Deadline 9 and Deadline 9a on 23rd January 2025. The attached Table and Closing Statement is submitted on behalf of Bishopton Villages Action Group (BVAG) a registered Interested Party (IP Reference Number 200048675).

BVAG includes residents from the villages of Bishopton, Great Stainton, Little Stainton, Brafferton, Whitton, Stillington, Sadberge, Carlton, and Redmarshall. BVAG does not necessarily express the views of the local Parish Councils or Meetings, although many of the opinions are shared by the affected community.

In respect of Deadline 9 and Deadline 9a please find attached:-

1. A table of Residual Matters in respect of Deadline 9 and 9a
2. BVAG Closing Statement to the Examination for the Byers Gill Solar Project.

We would be pleased to provide any further information required by the Examining Authority.

Andy Anderson MRTPI FRGS

For and on behalf of Bishopton Villages Action Group

Bishopton Villages Action Group

BVAG Deadlines 9 & 9A Responses

23rd January 2025

This table has been prepared by BVAG for submission to the ExA at Deadlines 9 and 9A.

Deadline 9 comprises a single item, ie '*Any further information requested by the ExA*'.

Deadline 9a also comprises a single item, ie '*Post-hearing submissions including written submissions of oral cases as heard at the hearings held on the 15 – 16 Jan 2025*' (although it is assumed that this includes ISH8, the first day of which was held on the 14th of January).

During ISH8, BVAG asked the ExA whether, at Deadline 9 / 9a, they could submit a note setting out a list of residual issues / concerns, ie those not specifically included in the Statement of Common Ground (SoCG) between the Applicant and BVAG but which in BVAG's opinion were not satisfactorily addressed and / or not concluded during the course of the Examination. The ExA agreed and suggested this could be called a 'Schedule of Unresolved Matters'.

The table below therefore includes BVAG's comments on / responses and references to: 1) any further information requested by the ExA; and 2) post-hearing submissions including written submissions of oral cases as heard at hearings ISH8 and ISH9. It also summarises the unresolved matters, and sets out BVAG's final position on matters which have been the subject of discussion throughout the Examination.

Other relevant matters are set out in the SoCG, so the two documents may be cross-referenced.

The residual issues are set out under the main topic headings used during the Examination, and arranged in alphabetical order.

At the end of the table, there is a 'closing statement' prepared by BVAG which distils the essence of the community's concerns.

BVAG Responses Deadlines 9 & 9A

Topic	BVAG Comment
1. General and Cross-topic Questions	
Consultation / Community Engagement	• BVAG noted the Applicant's 'inadequacy of consultation' in the early stages of the application process (see BVAG's Inadequacy of Public Consultation Report [AoC-002] and Summary Table of Findings [AoC-003]). • BVAG welcomed the improvements made since, for example in the ExA's support for RWE and BVAG to work on a Statement of Common Ground. • BVAG welcomes RWE's later engagement in discussing community suggestions for panel modifications and involvement in the Design Approach Document (DAD) which now includes these suggestions. Notwithstanding the limited interaction detailed above, it is BVAG's opinion that throughout the whole process the Applicant (JBM / RWE) has not engaged with the local community, their representatives and the ExA with sincerity or integrity. • They have sought to 'bulldoze' their way through the application process without trying to get the support of the community. • They have not answered questions thoroughly, regularly obfuscating and 'spinning' information to present supportive illustrations without foundation. • They have demonstrated contempt for the residents in how they have kept them at 'arm's length', making it difficult to access information or meetings. • They have not made genuine and meaningful attempts to address the majority of questions raised during and after Hearings. Often, questions are not directly answered, instead the response refers back to the ES and other Application documents, the flaws in which were usually the reason for the requests for clarification / further information in the first place. This demonstrates a breathtaking contempt for both interested parties and the ExA. • They have promoted the benefits of the project to the local community yet have not adequately consulted the local community on what tangible benefits would look like (see also Health, Well-being, Quality of Life topic under heading 9. Health and Air Quality). • They suggested that fields adjacent Mill Lane were removed from the scheme as a result of the consultation process, when in truth the fields were removed because the landowner pulled out.

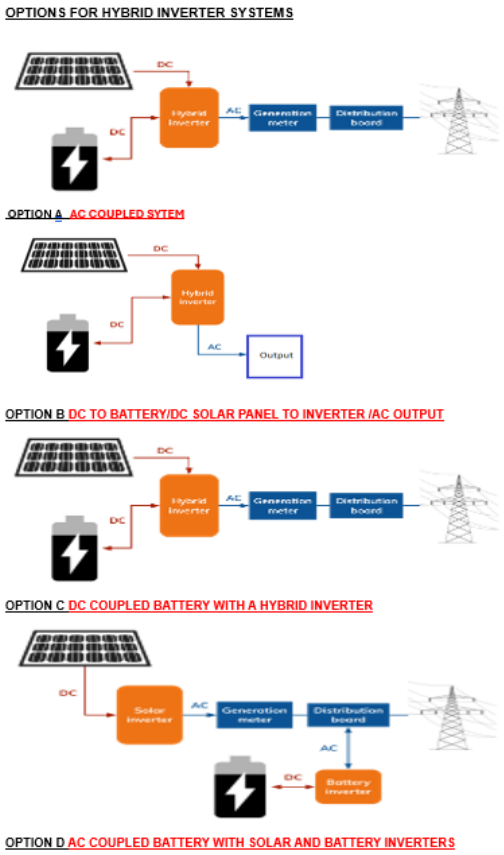
2. Principle of the Proposed Development	
Alternatives	• BVAG would draw attention to the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 Schedule 4 'Information For Inclusion In Environmental Statements': '*A description of the reasonable alternatives (for example in terms of development **design, technology, location, size and scale**) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, **including a comparison of the environmental effects***.' • Several times, BVAG have raised **the lack of genuine alternatives** considered by the Applicant in bringing forward this proposal. (Directive 2011/92/EU as amended by 2014/52/EU). '*The identification of Alternatives to the Project is a long standing requirement of the EIA Directive, but it is often mentioned by practitioners as comprising a difficult element of the EIA process.*' • **BVAG's Deadline 8 response set out our position in full.** In summary BVAG stated that whilst recognising that Government policy supports ground-mounted solar as part of a portfolio of renewable energy, BVAG's opinion is that there are locations which are appropriate for solar, and locations which are not. • The Regulations are clear. Alternatives are not just about re-locating some panels from one field to another. For a project of this scale, real alternatives should include establishing where and how do we best generate 180MW, and how these alternatives compare in terms of potential significant harm to people, their homes, and communities.
Capacity / Overplanting: Inverters	**Inverters are very important and highly relevant factors in determining capacity, and levels of overplanting**. EN-3 para. states that '*Solar panels generate electricity in direct current (DC) form. A number of panels feed an external inverter, which is used to convert the electricity to alternating current (AC). After inversion a transformer will step-up the voltage for export to the grid. Because the inverter is separate from the panels, the total capacity of a solar farm can be measured either in terms of the combined capacity of installed solar panels (measured in DC) or in terms of **combined capacity of installed inverters** (measured in AC)*' (BVAG emphasis). At **ISH8**, during discussions about Agenda Item 3 Principle of Proposed Development re capacity / overplanting ratios, Ms Tinkler asked the ExA if the Applicant could clarify whether the size of the proposed inverters (in terms of wattage) affected the overplanting ratio: specifically, in this case, would the use of larger / more efficient inverters reduce that overplanting ratio? The Applicant said that a change of inverter size would have a 'negligible' effect on the ratio, but CT did not understand the explanation that followed. The ExA asked CT to submit a note on this point at Deadline 8. However, BVAG needed to check several matters before the note could be completed, therefore it was not submitted at Deadline 8 after all. Unfortunately, the exercise proved more complex and has resulted in there being more questions about the proposed inverters than originally envisaged. BVAG would be very grateful if the ExA will consider these questions, which are set out below, along with a brief explanation of the matters involved and the implications, where relevant.

Also during ISH8, at the suggestion of the ExA, there was an email exchange between BVAG and the Applicant in which the Applicant confirmed the following figures which are of relevance to capacity and overplanting calculations:

1) The number of panels proposed is 505,386 (as stated in the ES).
2) As stated, RWE have designed for 53 Hybrid converters, where they are included with a BESS unit, and 44 standalone inverters, which totals 97 inverters.
3) RWE are assuming 2.1MW capacity for each inverter.

Hybrid Inverter System Options

The diagram below shows hybrid inverter system options:



	A hybrid inverter, also known as a multi-mode inverter, is a device that combines the functionalities of a grid-connected inverter and a battery-based inverter. Its primary purpose is to manage the flow of electrical energy between renewable energy sources, such as solar panels or wind turbines, the electric grid, and energy storage systems like batteries. The working principle of a hybrid inverter involves different modes of operation depending on the available energy sources and the demands of the electrical system. In a hybrid solar power system, the hybrid inverter can also interact with the electrical grid. It allows for two-way power flow, meaning that excess electricity from the solar panels or batteries can be fed back into the grid, while electricity can also be drawn from the grid when needed. This interaction with the grid provides additional flexibility and reliability to the system. Combining the functions of a solar inverter and a battery inverter, a hybrid solar inverter (See Options C or D above) simplifies the installation and management of a hybrid solar power system. It optimises energy usage, increases self-consumption of solar power, and provides backup power during outages, making it a versatile and efficient component of a renewable energy setup. A hybrid solar inverter combines the functions of a standard solar inverter with those of a battery storage system. Here are some important factors to consider: System Sizing and Power Output, Battery Compatibility and Capacity, Inverter Efficiency and Performance, Monitoring and Control Features, Durability and Warranty, Grid Connectivity, System Expandability, Cost and Return on Investment. <u>Curtailment</u>: If the system produces excess energy above the battery storage capacity, what options are available or feasible within the designed system? And if there is no immediate use for the excess solar energy, will the hybrid inverter have a feature or facility called curtailment? Curtailment would reduce the solar energy production and avoid overloading the system or wasting the excess energy. Q1. Can the Applicant explain the use of Hybrid and Non-Hybrid Inverters, and the quantities of Non-Hybrid Inverters? Why are two different inverter types proposed? Q2. The use of Hybrid Inverters considerably reduces power losses and this in turn would reduce the need to use the 1.6 Ratio. If a reasonable 1.2 Ratio was used it would substantially reduce both the number of solar panels and the amount of land required. Can the Applicant confirm the basis for their use of the 1.6 ratio? Q3. The use of a curtailment facility is typically a last-resort option and aims to ensure the stability and safety of the electrical system. Is it the Applicant's intention to include it in the system design and installation to protect the system from overproducing energy that cannot be used and or stored? Q4. BVAG contend that the Ratio of 1.6 does not take account of the benefits gained from the use of Hybrid Inverters. Could the Applicant explain the relationship between the 1.6 ratio and the choices of different Inverters and those proposed. The use of Hybrid Inverters improves the efficiency of the panels system output, therefore the number of panels to be installed and the land use reduced. A normal Inverter converts direct current (DC) power from a battery or solar panels into alternating current (AC) power to run household appliances during power outages.

	Whilst a normal Inverter can charge batteries using power from the grid or a generator, it cannot charge batteries using solar power. It is not designed to interact with the grid beyond providing backup power during outages. A normal Inverter does not have advanced energy management features. It simply converts DC power to AC power and supplies it to the connected load. It provides backup power during outages but relies on the grid as its primary power source. Q5. With the above in mind, please provide explanation why the proposed system is using 44 standard Inverters alongside 53 Hybrid Inverters when if all Inverters were of the Hybrid type then a substantial reduction in panels and land use could be made. Q6. Is the Applicant intending to use any Off-Grid Inverters? If so how many will be installed? Also, why, when Off-grid inverters are not designed to interact with the utility grid as they do not have the ability to export energy to the grid or receive energy from it? The size of a solar system is measured in kWp (kilowatt peak). It is the amount of power produced under standard laboratory test conditions, which broadly equate to bright sunshine. So a 2 kWp system will produce 2 kW of electrical power in bright sunshine. Q7. Protection devices within Solar Power Systems are very important as without them, undesired situations starting from fire hazard or dangerous health situations can occur. Please could the Applicant confirm: Size of Overcurrent Protection Devices, Fuses, Breakers in the Systems? The Applicant's calculations are apparently based on the use of Jinko 571watt 2278mm x 1134 panels. BVAG's calculations indicate that a typical Ratio applied to the proposed system of 1.2 to 1.3 would suffice based on the 95% efficiency resulting from the use of Hybrid Inverters for AC-DC coupling instead of AC coupling. BVAG's calculations also indicate that the Applicant has indicated that they have calculated 505,876 panels are required to meet their obligations regarding an 180Megawatt supply connection with National Grid at Letch Lane. This gives approximately 288Megawatt AC supply output obviously derived from the application of the use of the 1.6 Ratio. **The Applicant has not responded to all requests on the above to date.** The use of 97 Hybrid Inverters each of 2.1KW is of some concern as they would provide an AC output of 203.7 Megawatts AC. If the 1.6 Ratio is applied at this point then the maximum output of the panels equates to **325.9 Megawatt**. The Applicant has indicated that there will be no power clipping or power wasted in their final design and build. This would suggest that the Applicant intends to install oversized BESS battery packs to accommodate the excessive power produced. Q8. Can the Applicant please confirm the actual values and details of equipment proposed based on their proposed design? **Preamble to Q10:**

The Application describes 53 BESS units as part of 'hybrid units ' with an inverter and a transformer across the site (Ref RWE DAD APP-165 superseded by AS-004). However, when looking at the design of the hybrid units in the DAD it appears as if each 'hybrid unit' has two batteries i.e. 106 battery units. Can the Applicant confirm / clarify this? See below extract from DAD of a 'hybrid unit':

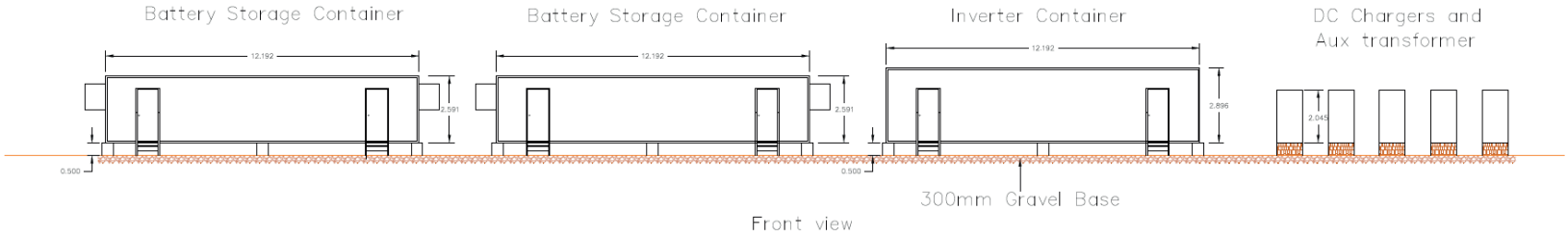


Diagram Ref APP-048 '6.3.2.10 Environmental Statement Figure 2.10 Typical Inverter, Transformer and BESS arrangement

Q9. Can the Applicant please provide details of the Inverters, Battery packs and method of control that will both control and protect the systems?

Q10. Can the Applicant confirm the total number of BESS units proposed to be installed throughout the Solar Site and type / size / capacity of the equipment housed in the BESS units?

The Applicant has failed to provide a robust design solution throughout the DCO proposal: in failing to do so, they have possibly introduced a design which **compromises the safety and wellbeing of all of the local residents affected by the project**.

Clipping / Wastage

Inverters usually have a capped output, meaning that if there is more DC electricity being generated by the solar panels, the inverter is only able to convert its maximum capacity, essentially *clipping* the leftover electricity. This is known as 'solar clipping' and it can ultimately lead to the loss of solar energy that could have been supplied to the National Grid system.

Energy loss is dependent on how much sun exposure solar panels typically get, the size of the array, and the maximum AC output of the Inverter. Whilst it may not occur frequently, and it doesn't damage the system, it can still be an inconvenience when revenues from the solar farm are critical.

The easiest way to avoid solar clipping is to have a good balance between how much energy the solar panels capture and how much energy the inverter can convert.

	The inverter can be sized with an output rating that exceeds the expected output power from the solar arrays, without losing conversion efficiency. A larger solar array is more likely to experience solar clipping, so it may be worth considering downsizing a solar array if it's oversized. Excess energy: If a solar farm generates more solar power than it needs to meet the agreed connection values, the excess energy is wasted. There are several options for what to do with the excess energy, all are at the discretion of the managing company, and most will not produce revenue. All methods available will increase build and maintenance costs and include increased size of Invertors / Transformers, etc. Another option would be to reduce the size of the solar development.
Capacity / Overplanting / Land-take / Efficiency	• It is believed that RWE could build this solar farm **on a smaller footprint** and reduce the amount of land taken out of food production, reducing the need to use BMV land and at the same time as potentially reducing levels of environmental and human harm. • Could / should less land be used? As a priority a reduction in land take could draw back panel areas from villages and homes. • RWE planting ratio of 1.6 is based around **a positive viability but no information** is given beyond an acknowledgement from the applicant that is it Net Present Value Positive. • BVAG would like the viability to be tested against lower planting ratios ranging from other industry norms from 1.3 to 1.5. • Viability may change for a variety of factors including a Contracts for Difference Agreement. • As such BVAG contend that planting ratios should be tested against different viability criteria. Regarding the Longhedge appeal decision that was raised during discussions / in responses, and the reference to this in the Applicant's Comments on Deadline 7 Submission (REP7-014), Ms Tinkler can confirm that the case is now subject to Statutory Review.
DNO substation	This topic was raised at the Modifications meeting held with the Applicant on the 10th of October 2024 in the presence of ARUP. BVAG made a specific suggestion to relocate the Substation to the opposite side of Square Wood, as this would a) give improved access to the Substation (currently proposed noted as highly problematic in responses), and b) reduce otherwise very high levels of adverse effects on landscape character and visual amenity. The Applicant has not responded to this suggestion.
Efficiency	In their response to ExQ1 PPD.1.13, the Applicant states that in terms of energy / power, the proposed development '*could produce 263,872 MWh per annum resulting in a capacity factor of 16.7% [calculated as: 263,872 / (365*24*180)]*'. Could the Applicant please confirm whether the 16.7% capacity factor relates to the average overall efficiency of ground-mounted solar developments throughout the UK? Please explain / provide the genesis of that figure, and why it has been used in the Applicant's calculations. Note that in the UK – in northern regions especially – solar is notoriously inefficient mainly due to inclement weather and long hours of darkness. Figures recently published by the National Grid confirm that overall, solar efficiency has been as low as 10%, although before

	that the figure was 11.6%. This **extreme inefficiency** results in the use of much more land (which in this case is productive farmland) than necessary, and high levels of environmental harm and human suffering. In BVAG's opinion, this is unjustifiable. CPRE's evidence indicates that solar on UK roofs, car parks and brownfield land (which policy advocates) could generate 117GW of clean energy.
Planning (Policy and Principle), Strategy, Guidance	• BVAG consider that the proposal in not policy-compliant in terms of national, and local planning policy. • Planning Policy Guidance Renewable Energy is clear: "*There are no hard and fast rules about how suitable areas for renewable energy should be identified, but in considering locations, local planning authorities will need to ensure they take into account the requirements of the technology and, critically, the potential impacts on the local environment, including from cumulative impacts.* ***The views of local communities likely to be affected should be listened to.***" "*cumulative impacts require particular attention, especially the increasing impact that wind turbines and large scale solar farms can have on landscape and local amenity as the number of turbines and solar arrays in an area increases;*" • We have questioned the Principle of Development in terms of land take, and its real contribution to climate change and accounting mechanisms for scope 1, 2 and 3 emissions. • The benefits of the proposed development do not outweigh the identified harms relating to, *inter alia*, the impact on landscape character, visual amenity, residential amenity, ecological assets and harm to designated heritage assets.
Principle of Development	BVAG contends that large-scale industrialised solar installations on farmland are on the wrong side of history. Voices increasingly heard of 'solar on rooftops' and future generations will ask why we covered England's Green and Pleasant land with such unattractive industrial complexes.
Temporary vs Permanent	• 40 years is a generation or a lifetime, and should be assessed as 'permanent'. • 40 years plus construction and de-commissioning could extend to at least 45 years. • Community concerns that the energy generating will be continued and extended beyond 40 years: some large-scale solar developments already have permission to extend generation beyond the consented 40-year period.
Viability	• Viability is the headspring of the design approach, overplanting, and excessive land take, from which flow a number of streams of identified harms. • Information on viability is hidden and limited only to the Applicant's conclusion of NPV positive. • BVAG contend that viability will change over time, both with changing cost and revenues market scenarios but especially if a Contracts for Difference (CfD) Agreement is secured.

	• A total of **93 ground-based solar projects**, with a combined capacity of 3,288 megawatts, **have secured support under the sixth allocation round of CfDs**. A total of 884MW has been contracted for delivery in 2026, with 509MW in 2027 and 1,895MW in 2028. BVAG contend therefore that viability assessments should be tested against different planting ratio scenarios. If 1.3 ratio is more positive with CfD than 1.6 pre-consent then **viability not technology innovation** should be the criteria and threshold for community panel modifications.
3. Environmental Impact Assessment	
Decommissioning	BVAG has noted the lack of information to assess Scope 3 emissions from the downstream life cycle of the proposal. The removal, transportation and disposal of this vast amount of steel and potentially one million large used solar PVs is unaccounted for. This applies to both panels with a 25-year lifespan and their subsequent replacements. This underplays the proposal's contribution to climate change, and fails to address indirect impacts as required by the EIA Regulations. Due to variable factors which include the economy, politics, climate change, and technology, it is impossible to predict with any certainty how decommissioning works would be dealt with and whether / how the land would be 'restored to its previous use', as the Applicant claims. Notwithstanding this, BVAG's position remains that the Applicant has not properly considered the significant adverse effects likely to arise during the decommissioning stage (see for example BVAG's landscape review report REP2-044), and has erroneously assumed that decommissioning would deliver 'benefits', some 'significant'. As BVAG's submissions have explained and evidenced, the adverse effects of solar development on soils during construction and operation are well-known; however, as so few (if any?) sites have been decommissioned, predictions about effects are currently based on assumptions, not experience. The likelihood is that soils would be in a far worse state than they were before development began, with lower ALC grades, and that any biodiversity benefits would be wiped out when grassland, woodland, hedges and other habitats that had become established over time were removed – potentially requiring an EIA beforehand.
Direct / Indirect Effects	BVAG addressed in **Deadline 8** table response under Climate Change. • Applicant has failed to assess fully **indirect impacts** despite EIA regulations and revised Dec 2024 NPPF. • Indirect impacts = **upstream** (production/transportation) and **downstream** = decommissioning and recycling. • Analysis of upstream shows **Scope 3 carbon emissions either not accounted for, incorrectly measured** or failure to disclose according to UK and international legislation and treaty.

EIA	• The Environmental Statement has become a **statement of advocacy** for the proposed development, rather than a Statement of Environmental Impacts to inform and guide decision-makers. • Lack of consideration of **alternatives** to generate 180MW of electricity for the ground mounted solar proposal at Byers Gill. Decision led by grid capacity and willing landowners rather than the most suitable location which minimises adverse impacts on flora, fauna and people. See BVAG (Mr A Anderson) written-up oral submissions on EIA on p. 1 of BVAG's Deadline 6 Post-hearing Submissions to the ExA 6th December 2024 [REP6-036] under heading OFH3 Tuesday 26th November 2024.
Glint and Glare	Firstly, at Deadline 8, the Applicant did not respond to BVAG's comments relating to ExQ3 GCT.3.2 'can the Applicant confirm if it has considered non-reflective panels', and the Applicant's response being that '*All solar panels procured / used by RWE are non-reflective as they are designed to absorb light*'. BVAG's position on this matter remains as set out at REP7-014 re GCT.3.2. Secondly, the Applicant's Deadline 8 response to this matter (see REP7-014) does not address BVAG's concerns about the Applicant's glint and glare study (GGS) generally. Concerns about the GGS method were raised at the outset by several parties including BVAG (see Section 4.6 of BVAG's landscape review report [REP2-044]), and during the Examination (see for example BVAG's Deadline 6 Post-hearing Submissions to the ExA 6th December 2024 (ISH6 Landuse and Socioeconomics Carly Tinkler CMLI oral submissions on behalf of BVAG [REP6-036]), under the heading *Glint and glare*, on pp. 16 – 18). During ISH8, Ms Tinkler was asked to explain her residual concerns about the GGS. Ms Tinkler firstly asked the ExA to note that there is an error in BVAG's REP6-036. At Item 1), an extract was provided from what was said to be 'a glint and glare study carried out by the same consultants which carried out the study for this proposal' [ie Pager Power], which stated that '*no solar panel absorbs 100% of the incoming light. Therefore, any solar PV panel has the potential to produce a solar reflection. The relative absorptive properties of a solar panel should be considered on a case-by-case basis*'. In fact, the extract is from para. 1.11 of Pager Power's informal guidance 4th edition. An important point about the Applicant's GGS method, and the sensitive receptors which were omitted from the study, was raised in BVAG's REP6-036. This related to the fact that '*Other road users, such as walkers, cyclists, and horse riders have not been considered within the study* [because] *In Pager Power's experience, significant impacts to pedestrians / equestrians using the surrounding public rights of way / bridleways are not possible due to glint and glare effects from PV developments*'. However, EN-3 para. 2.10.158 states that '*the Secretary of State should assess the potential impact of glint and glare on… **public rights of way***'. Therefore, in this regard, the GGS is flawed. Also, and very importantly, as explained in REP6-036, the GGS does not assess effects on the visual amenity of 'local' road-users (drivers, pedestrians, cyclists etc). The Applicant explained that the focus of the GGS is on safety, in terms of whether glint / glare could cause a

	serious accident on major roads, railways, and in the air, although effects on the amenity of residential receptors are assessed. However, as far as I can ascertain, **NPS EN-3 does not state that glint and glare effects should be confined to safety issues**. Furthermore, whilst the Applicant's landscape consultant Mrs Fisher asserted that the effects of glint and glare on landscape character and views are 'inherent' in the LVIA, there is no mention of glint and glare in the LVIA at all. During ISH8, Ms Tinkler said that when carrying out LVIAs where glint and glare is an issue, a different type of assessment is required. Mrs Fisher said she assumed that meant a technical GGS (by others), but that is not what Ms Tinkler meant. The point is that both the phenomena and the specific effects of glint and glare need to be understood by the LVIA assessor, and there should be close collaboration between the LVIA and GGS assessors, especially in terms of mitigation. Here, it appears that there was no collaboration. The GGS assessor used the LVIA's recommendations for mitigating screen planting as the basis for the GGS; however, as the LVIA's assumptions about this matter are flawed, then so are the GGS's. It is agreed between the parties that in principle, the proposed development would give rise to significant adverse visual effects, which would include those arising from glint and glare; however, **there is the potential for users of PRoWs and local roads to be severely adversely affected by glint and glare, with implications for human health and road safety**.
4. Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	
No further comments at this stage.	
5. Development Compulsory Order	
DCO Draft	• BVAG would welcome the ExA or Darlington Borough Council`s support in ensuring that the community mitigation and design suggestions in the Design Approach Document (DAD) are tabled and fully discussed. • BVAG would therefore welcome reference in any consent DCO if appropriate.

6. Biodiversity, Ecology and the Natural Environment	
Biodiversity / Ecology	• Underplays significance of ecological assets and value of habitats to people and wildlife alike. • Ecological assessment ignores local knowledge and experience. • Underplays danger to wildlife through construction and operational process (i.e. infrared light, otters and water habitats in particular). • Applicant's control of ecological monitoring especially during construction through an RWE Clerk of Works lacks transparency and an understanding of potential conflicts between the need to move ahead with construction and the need to take care and reduce ecological harm to wildlife and plants during this time. • BVAG propose independence of ecological monitoring through an independent wildlife trust. See also Mr A Anderson (BVAG)'s written-up oral submissions on Ecology on p. 8 of BVAG's Deadline 6 Post-hearing Submissions to the ExA 6th December 2024 [REP6-036] under heading OFH3 Tuesday 26th November 2024, and Mrs McKeown's comments / the Applicant's responses about great-crested newts on p. 20 of 24 of RWE's 8.33 Comments on Deadline 6 Submissions [REP7-011].
7. Climate Change and Emissions	
Climate Change	See BVAG's Deadline 8 table note on Climate Change. • The Byers Gill Solar application is proposed as solution to UK legislation and policy to combat climate change through the reduction in carbon emissions as part of a transition from fossil fuels to renewable energy. • Its recognised harms are justified by the need for this 'greater good' of reducing carbon emissions. • The Application and EIA however fail to assess **its own carbon emissions through the lack of a life cycle analysis and scope 1, 2 and 3 emissions** which would result from: a. Production of PV Solar Panels and Steel supports in China. b. Solar Panel supply chains from Africa to China (Congo for example). c. Shipping by both land (road) and container ships by sea to the UK, China and international waters. d. On-site operations and degradation of materials. e. Emissions from 25 years replacement through a 40-year life span. f. Removing, decommissioning and recycling. g. Global recycling and landfill, or waste disposal of half a million 2m x 2m PV Solar Panels.

8. Design	
Design (of Scheme, and Design Approach Document (DAD))	• BVAG welcome the inclusion of the community suggestions for panel modifications (Appendix DAD). • We would seek assurances that the panel modifications would be used as a basis for detailed design approval should consent be granted. • During a Hearing the grid connection date was revealed to be 2031 yet the scheme design has been based upon a specific make / model / performance of a panel in 2023 which could potentially be obsolete by the time of the connection date. • BVAG knows that since 2023, applications have been specifying higher wattage panels than those proposed (eg 685 vs 570). BVAG does not accept that larger wattage automatically means larger panels / more land take. • The Applicant has not considered that technological advances would inevitably result in more efficient panels, and therefore require less land take. • The Applicant has not 'built' this into their plans for land take and the opportunity to scale back the development from sensitive residential areas, eg; Bishopton. • The Applicant has not adequately explained nor justified the overplanting ratio and not linked technological advancement into their overplanting ratios (see for example Capacity topic under heading 2. Principle of the Proposed Development). • The Applicant has not provided a cost / benefit analysis of the project in respect of the proposal ie food production loss (measured in tonnes / £s etc) vs Energy production (measured in £s) and / or financial benefit to residents eg loss in property value vs savings in energy costs. Regarding 'good design in NSIPs', which was recently the subject of a PINS webinar that provided very useful and interesting information about the subject, **BVAG considers that the requirement for 'good design' in this NSIP has not been met**.
Mitigation / Design – additional including scheme modifications	BVAG's position is that **any modifications proposed can only ever be seen as a reduction and would not result in any form of acceptance of the overall scheme**. Notwithstanding the above, BVAG would encourage the ExA to establish whether additional mitigation measures, and / or scheme modifications (within the DCO area), such as more planting, or removal and / or relocation of panels, would result in levels of adverse landscape, visual and other effects being reduced to 'acceptable' levels. However, BVAG have concerns over the feasibility of future mitigation / mechanism to secure. There is no guarantee that any of the additional mitigation measures / scheme amendments currently under discussion would be implemented post-consent.

	BVAG's understanding is that the ExA can only consider the scheme which has been the subject of the Applicant's effects assessments. Also, even if agreed in principle now, there is no mechanism available to ensure that if consent was granted, any proposed additional mitigation measures / scheme modifications would be secured / delivery would be guaranteed. Also, any additional mitigating measures / scheme modifications are only speculative at this stage, due to the current uncertainty about the amount of land required for the scheme to generate the stated capacity.
9. Health and Air Quality	
BESS / Fire Risk	Some of BVAG's unresolved concerns about the risks posed to environmental and human health by the proposed BESS, and the potentially **catastrophic significant adverse effects** that could occur, are summarised in BVAG's landscape review report [REP2-044] at Section 4.4, and in other responses / comments submitted by residents, for example Mr. Norman Mullaney, whose knowledge and understanding of these matters is extensive. Over the last few months, more academic and industry experts have been calling for a pause on large scale lithium-ion BESS deployment until adequate Government safety regulations are in place. Some US cities have already imposed a moratorium on Li-BESS following a spate of incidents. It is accepted that batteries may well be needed to support renewables but this does not mean that they should not be deployed safely, and in suitable locations. Leading lithium-ion battery manufacturer DNV say that there is an expectation that at least one failure in a Li-BESS will occur over the lifetime of a project; expecting a failure to never occur is unrealistic. They say that their objective is to try to ensure they "fail safely" - but it seems that the technology used to date does not yet enable this. BVAG understands that currently, BESS units have to be replaced every 8 years. Given the large number of units, the result would be a repeat of some of the adverse effects of construction on the environment and human health, on site and along the construction route. Bear in mind that the redundant units contain toxic waste. Finally, BVAG notes that the Applicant's assessment of effects of scheme elements such as BESS is based on the distance between the receptor and the fenceline of the solar panels, not the site boundary: it should be to the boundary, as works / activities would take place on the land in between.
Health and Safety	Re 'Formal Byers Gill Project Design Risk Assessment' at BVAG35 in latest version of SoCG between the Applicant and BVAG. The Applicant has missed the point here: they refer to the Principal Contractor preparing a Design Risk Assessment - this is not the case. Under CDM Regs the Principal Contractor prepares the Construction Phase Health & Safety Plan, which is the next evolutionary step from the Pre-Construction Information (PCI) prepared by the Employer (in this case RWE). The responsibility for the Design Risk Assessment does not lie with the Principal Contractor preparing - the Employer and his Principal Designer have responsibility to make sure that recognised and unacceptable risks are designed out of the proposals. So on this basis the SoCG status must be Not Agreed. The health and safety of residents has not been properly considered, neither during construction nor operation.

	Despite requests for a 'Design Risk Assessment' this has not been adequately provided. The risks to walkers, horse riders, cyclists, etc will be more prevalent (frequency) and will be of a more significant impact as a result of the scheme. A fall from a spooked horse could result in a fatality! Sean Anderson of BVAG asked Michael Baker of RWE on numerous occasions if / how he could guarantee the safety of horses and their riders, but he has failed to provide a response.
Health, Well-being, Quality of Life	The Applicant's Deadline 8 response to this matter (see REP7-014) does not address BVAG's concerns about the effects of the proposed development on people's health, well-being, and quality of life. Health, well-being, and quality of life are essential aspects of assessments of effects. NPS EN-1 mentions the importance of schemes such as the one proposed protecting and enhancing human health, well-being, and the quality of people's lives (eg para. 4.3.4, Section 4.4, and para. 5.12.1). However, there appears to be no consideration of this in the Applicant's submissions. 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*'. BVAG's position is that the impacts would be significant adverse, and that level is **not 'acceptable'**. This matter is dealt with in BVAG's landscape review report REP2-044, at paras. 6.22 – 69, and as the responses demonstrate, is one of the local community's significant concerns. This is reflected in ExQ HAQ.3.1, which said, '*At OFHs concerns have been raised by several different IPs regarding the impact that the Proposed Development is likely to have on their general well-being, particularly in relation to stress levels linked to the Proposed Development. Can the Applicant please confirm if these have been considered and how the Applicant has mitigated against these?*' The Applicant's responses direct the ExA back to the ES, but as far as BVAG can ascertain, the ES only deals with effects on human health arising from known forms of pollution (including eg noise), accidents and so on, not how the development would actually affect people's mental and physical health over the years. Please note that **BVAG does not agree with RWE's claimed 'local community benefits'**, and does not consider that these carry any weight in the exercise of balancing benefit vs harm. BVAG urges the ExA to give **great weight** to the harm that would be caused to people's lives and the associated suffering if this development went ahead, and the fact that the harm and suffering would be very long-lasting – indeed, some would have to endure it for the rest of their lives. Para. 2.13 of BVAG's May 2024 Relevant Representation report (doc. RR-548) states, '*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.*'

Horses / Equestrians	BVAG consider that the Applicant is incorrect in their answer about effects on horses / riders in RWE's response to ExAQ1 GCT.1.15. Note also BVAG's response to RWE's response to ExAQ1 TT.1.33: BVAG is very concerned about the various significant adverse effects on these and other receptors likely to arise from construction traffic at several locations. See for example doc. REP2-044 paras. 4.2.2 - 37. See also Glint and Glare topic. The risks to horse riders will be more prevalent (frequency) and will be of a more significant impact as a result of the proposed scheme. The local equestrian community knows better than anyone else how the proposed development is likely to affect them and their horses. Horses are 'sensory' animals, and any change in surroundings, be that visible or audible, however limited, has the potential to cause a direct problem to horses, riders or carriage drivers. No matter the age, experience or training, horses remain unpredictable animals due their inherent 'flight' instincts. This residual unpredictability, however small or limited, has the potential for catastrophic consequences should a horse bolt, rear, or spook. In addition, most riders fully appreciate the unpredictability of their horses, and their knowledge of the potential consequences can initiate an anxiousness in the rider, which the horses pick up on and that in turn creates unpredictable consequences from perceived danger. With this in mind, the proposed development is likely to have an extremely significant impact. There is a significant risk that fall from a 'spooked' horse could result in a fatality! As previously indicated Sean Anderson of BVAG asked Michael Baker of RWE on numerous occasions if he could guarantee the safety of our horses and their riders – he has failed to provide a response.
10. Historic Environment	
Heritage / Archaeology	• BVAG questioned how an assessment by the Applicant of '**Less than substantial harm 'at the upper end of the scale'** later becomes '**no harm'** according to the Applicant's ES Heritage Chapter. • Lack of **Geophysical Surveys** around areas of greatest archaeological significance (Bishopton Motte and Bailey). RWE's response to this repeated the procedure and methodology employed but did not provide an adequate justification. • The Heritage Assessment **underplayed the significance of heritage and archaeological asset**s (especially historical significance of Bishopton Motte and Bailey and its rarity and high level of perseveration). • **Underplayed the significance and importance, and harm to, heritage settings** especially with regard to surrounding farmland and fields which underscore the importance of the Bishopton Castle. • Ref: AA oral submissions on EIA on p. 3 of BVAG's Deadline 6 Post-hearing Submissions to the ExA 6th December 2024 [**REP6-036**] under heading **OFH3 Tuesday 26th November 2024)**.

	• Note that BVAG's landscape review report [REP2-044] identified what looked like historical features west of the motte at Bishopton. In response (in RWE 8.13 Comments on Written Representations at p. 42 of 110 [REP3-005]), RWE said, '*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*'. As far as BVAG can ascertain, this information has not been provided by RWE. It is important because the features may be of archaeological interest, but could be adversely affected by the proposed development.
11. Landscape and Visual	
Mitigation Effectiveness (screen planting)	EN-1 para. 5.10.14 states that '*The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project*'. In this case, BVAG and the Applicant have agreed that the proposed development would result in significant adverse effects, but not whether the levels would reduce over time through screen planting. The Applicant's position is that indirect landscape and visual effects would be significant adverse for the first 15 years or so of operation. After that, adverse effects would reduce to a point below the significance threshold due to existing and proposed screen planting having become fully effective. The screen planting would remain effective for the duration of the operation. BVAG's position is that due to the number of variables (see for example paras. 5.20 – 27 in BVAG's landscape review report REP2-044) it is not possible to predict with any certainty which views would be screened over 40+ years, so **the worst-case scenario of no screening by vegetation should be assumed**, with effects assessed and the scheme designed accordingly. This is an important factor in making judgements about whether the benefits of the project would outweigh the visual harm that would occur.
Landscape Character	As set out at para. 2.3 of the Landscape SoCG (REP7-008), BVAG and the Applicant **agree** that '*The Proposed Development would give rise to significant adverse residual operational effects, including cumulative effects, on landscape character* [and] *settlement character…*'. However, it is **not agreed** '*Whether effects on the character of the settlement of Brafferton would be significant adverse, which the LVIA concludes they would not be*' (LSoCG para. 3.3).
LVIA	'*Whilst there is **not agreement** about certain aspects of methods, and all of the LVIA's predicted levels of effects on landscape character areas* [and] *settlements… these are not considered to be important-enough factors in the decision-making process to warrant detailed discussion*' (Landscape SoCG para. 3.5).
Recreational Amenity	Recreational amenity is a factor that is considered in the LVIA process, both in the assessment of effects on landscape character (for example in terms of resource / function / value), and visual amenity.

	BVAG and the Applicant **agree** that the proposed development would result in '*significant adverse residual operational effects, including cumulative effects, on landscape character, settlement character, and visual amenity*', including **significant adverse effects on recreational amenity**.
Residential Amenity / RVAA	EN-1 para. 5.10.14 explains that '*The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents… outweigh the benefits of the project*'. Some of BVAG's concerns about effects on residential amenity, which include effects on residential visual amenity, are set out in paras. 6.22 – 69 of BVAG's landscape review report [REP2-044]), as well as in many of the community's comments on and responses to questions about this matter. Adverse effects on residential amenity would arise during construction, operation and decommissioning, including loss of privacy, overlooking, overshadowing, loss of daylight, lighting, late-night / early-morning activities, movement, aural / visual / other disturbance, glint and glare, disruption, noise, vibration, odours, dust, flooding, pollution, and a general awareness of what is going on. Visual amenity is a component of residential amenity, usually called Residential Visual Amenity. In BVAG's opinion, the 100m study area adopted for the Applicant's Residential Visual Amenity Assessment (RVAA) is inadequate for the purposes of assessing visual effects on residential receptors. In fact, BVAG and the Applicant **agree** (see Landscape SoCG para. 2.7) that *Significant adverse operational visual effects would be experienced by receptors within or in close proximity to the Proposed Development, including at Great Stainton and Bishopton, and along sections of public rights of way (PRoWs) and roads within 1km of the Site*'. It therefore follows that **some residential receptors up to 1km from the Site would also experience '*Significant adverse operational visual effects*'**.
Security Fencing	BVAG has concerns about the adequacy of the deer-proof security fencing which the Applicant proposes to install around the perimeter of the site / the array areas for the duration of the operational phase. The matter is explained in Section 7 of BVAG's landscape review report [REP2-044]. In summary, the fencing would have to be far more robust than post-and-wire in order to deter thieves and satisfy insurance requirements. For some time, Police DOCOs have been responding to solar planning applications stating that high-security fencing should be a requirement, and some insurance companies will no longer insure proposals where deer-proof fencing is installed. Problems include i) the fact that high-security fencing causes much higher levels of adverse landscape and visual effects than deer-proof; ii) it cannot be cut so mammal gates cannot be installed, resulting in adverse effects on mammals crossing the site such as badger and hare; iii) it is inflexible (cannot easily span watercourses / hedges as deer-proof can); iv) it requires concrete foundations; and v) engineering works are required to install / uninstall.

	If consent is granted and detailed design approval subsequently sought / gained, it would be on the basis of the deer-proof fencing proposed in this Application. In future, either pre- or post-consents, should the specification have to be changed to high-security fencing, any divergence would need to be justified, and if not in accordance with the DAD designs could be refused by DBC. In BVAG's opinion, it is **critical** that should high-security fencing be proposed in future, then prior to determination the Applicant should be **required** carry out an EIA of the landscape, visual, ecological and other adverse effects likely to arise from the replacement fencing, setting out the differences in the associated levels of effects.
Sheep-grazing	Despite requests, the Applicant has not provided any information or evidence that changes BVAG's position about sheep-grazing (see for example paras. 4.5.16 – 31 of BVAG's landscape review report [REP2-044]), which in summary is that in the UK, sheep-grazing is very rarely practiced on large-scale ground-mounted solar sites because it is neither practical nor viable. Poultry grazing would be highly problematic (see sheep-grazing topic in BVAG's Deadline 8 Responses and Comments). Re RWE's response to BVAG's Deadline 7 submission (REP7-014), BVAG said they '*would like to know what evidence the Applicant has for these sites currently being used for long-term sheep- / other animal-grazing purposes*'. To date, the Applicant has not responded to this. Despite extensive research and frequent requests to applicants and developers to provide evidence for their claims, it appears there are extremely few and possibly no solar sites in the UK where it has been confirmed / verified that the land is currently being used for long-term sheep- / other animal-grazing purposes. Regarding the landowner who said that they '*would agree a Grazing Licence with the Applicant to manage any sheep grazing*', BVAG would like to know whether the landowner has previous experience of keeping sheep within solar arrays. That is because some shepherds put flocks on solar sites but withdraw them as soon as the problems identified in BVAG's and others' submissions become evident. See also Agricultural Use under the heading 12. Land Use and Socioeconomics.
Significance Threshold	See for example ExQ3 LSV.3.5 and responses. BVAG does not agree with the Applicant's arguments about why the LVIA threshold for 'significant' effects was set at 'High - Moderate', when it was set at 'Moderate' for other ES topics. 1) Note that in the GLVIA3 para. 3.32 - 3.34 extract that RWE provided, GLVIA3 para. 3.33 was omitted. The paragraph states that '*The final overall judgement of the likely significance of the predicted landscape and visual effects is however often summarised in a series of categories of significance reflecting combinations of sensitivity and magnitude. These tend to vary from project to project but they should… as far as possible be* ***consistent across the different topic areas in the EIA***' (my emphasis). 2) There may be no requirement, but on the vast majority of EIAs with which Ms Tinkler has been involved, the EIA co-ordinator has set a common significance threshold. Indeed, this is logical: as one ES for an NSIP (EN010110) states, in Chapter 4: Approach to the EIA at para. 4.9.10 (with BVAG emphasis), '*In applying this approach to significance evaluation,* ***it is necessary to ensure consistency between each environmental topic at the level at which effects are considered significant***. *Therefore, in general,* ***it is inappropriate for the***

	assessment of one topic to conclude that minor effects are significant, when, for another topic, only comparatively major effects are significant'. 3) BVAG does not understand the reasoning behind the Applicant's landscape consultant (Mrs Fisher)'s statement that if the significance threshold was reduced from High – Moderate to Moderate, then effects currently identified as Moderate would be reduced to Moderate – Minor, this being because the assessment had concluded they were not significant **before** identifying them as Moderate. **That is not the right approach**. The LVIA assessor firstly establishes levels of effects eg Moderate. Then, they consult the predetermined threshold of significance in order to establish whether a Moderate effect is categorised as 'significant' or not. 4) In reality, if the High – Moderate threshold used in the Applicant's LVIA was changed to 'Moderate', then the outcome would be that effects categorised as 'Moderate and not significant' would change to '**Moderate <u>and</u> significant**'.
Visual Amenity / Views	1) The Applicant and BVAG **agree** (para. 2.3 of the Landscape SoCG [REP7-008]) that '*The Proposed Development would give rise to significant adverse residual operational effects, including cumulative effects, on… visual amenity*'. 2) LSoCG para. 2.7 states **agreement** that '*Significant adverse operational visual effects would be experienced by receptors within or in close proximity to the Proposed Development, including at Great Stainton and Bishopton, and along sections of public rights of way (PRoWs) and roads within 1km of the Site*'. 3) The parties do **not agree** '*Whether existing and proposed screen planting would reduce levels of adverse landscape and visual effects over time to the degree set out within the LVIA*' (LSoCG para. 3.4). This matter is explained further in the topic Mitigation Effectiveness (screen planting). In summary, BVAG's position is that it is not possible to predict which views would be screened over 40+ years, so **the worst-case scenario of no screening by vegetation should be assumed and assessed**, and the scheme designed accordingly. 4) Under Matters Not Agreed, LSoCG para. 3.5 explains that '*Whilst there is not agreement about certain aspects of methods, and all of the LVIA's predicted levels of effects on… visual receptors, these are not considered to be important-enough factors in the decision-making process to warrant detailed discussion*'. However, during ISH8 discussions about the Applicant's Residential Visual Amenity Assessment (RVAA), the Applicant's landscape consultant Mrs Fisher said that LVIA (in terms of the LVIA process set out in GLVIA3) only considers public views. That is incorrect – see for example GLVIA3 paras. 6.17 and 6.36. Also note that para. 6.33 sets out 'visual receptors most susceptible to change', with 'residents at home' at the top of the list. 5) Regarding REP4-040 and RWE's subsequent questioning (in REP6-018, on page 12 of 15) of whether discussions were held during the ASI about '*important omissions and discrepancies between the situation of the ground, and the applicant's Landscape and Visual Impact Assessment*'. BVAG **strongly dispute** the comments made by RWE regarding in particular May Tree Farm. Mark Smith representing BVAG attended the site visit and May Tree Farm was specifically highlighted whilst reviewing viewpoints from Downlands Farm. This was acknowledged at the time by RWE's landscape consultant Mary Fisher, and by Michael Baker. BVAG were also asked by the Examiners to highlight the entrance to May Tree Farm from the bus whilst transiting between sites: Mr Smith duly pointed this out to the Examiners and other parties.

Worst-case Scenario VPs	BVAG understands that DBC's landscape expert's position is that the Applicant's LVIA's selected viewpoints (VPs) do not always represent the worst-case scenario. At comments on VP21 (page 3/9), RWE states that criteria for the selection of VPs for assessment included safety, in terms of taking photos and groups of people visiting locations for example on busy roads. The problem with this approach is that the worst-case scenario may not be assessed. The solution would be to report the worst-case scenario even if no photo was taken; include a photo from a nearby representative VP in a safer position; explain that the photo does not show the worst-case scenario; and set out levels of effects at i) the worst-case VP and ii) the 'safer' VP. That makes it much easier for decision-makers to understand the likely visual effects. But bear in mind that existing and proposed screening vegetation will vary in nature and height over time.
12. Land Use and Socioeconomics	
Agricultural Use	Doc. ref. APP-029 ES Chapter 9 Land Use and Socioeconomics Para. 9.10.55 states: '*There is the potential for some of the land to continue to be used in an agricultural capacity as grazing land during the lifetime of the Proposed Development…*'. The matter of grazing by sheep / other animals is explained further in the Sheep-grazing topic under the heading 11. Landscape and Visual. However, BVAG's position is that even if grazing did take place, which appears highly unlikely, the agricultural use of the land would cease for the duration of the development, and would be replaced by industrial use (evidenced by the resultant application of LPA business rates). Indeed, at para. 9.10.72 of ES Chapter 9, the Applicant confirms that agricultural use / production would cease for the duration of the development, by stating that '*The **return of approximately 457ha to agricultural production** following decommissioning would be a high magnitude of change…*' (BVAG emphasis). See also Decommissioning under the heading 3. Environmental Impact Assessment, and Soils: Effects / Benefits? Under the heading 12. Land Use and Socioeconomics.
Best and Most Versatile (BMV) Land	The proposed development would result in the loss of at least 7ha of BMV land. The remainder of the land is understood to be Grade 3b. Therefore, there would be **up to 100% loss of good quality and productive agricultural land**. BVAG's position is that the Applicant's overplanting ratio of 1.6 is excessive (see Capacity and Overplanting topics under the heading 2. Principle of the Proposed Development) and is only proposed in order to maximise profits. A lower ratio that only factored in panel degradation, which is all that EN-3 permits, would require less land and / or would cause less harm, particularly in terms of reducing the amount of BMV land that would be used – as per Government policy on renewable energy. Much of the Grade 2 BMV land is located close to affected villages, so reducing the use of BMV land would have the added benefit of reducing the harm to neighbouring settlements.

Economic / Socioeconomic (employment / business / financial)	**BVAG strongly disagrees with the Applicant's claimed local benefits**. • The costs of construction divide between materials and labour costs. Since 99% of materials by weight are from China none of this will benefit the local manufacturing economy. • Most jobs are available only during the construction / decommissioning phases. By the Applicant's own admission it is likely that contractors will need to recruit workers from beyond the region, including from overseas. • BVAG's experience of other solar developments and the Applicant's own admission of the extreme difficulties in finding suitable labour to complete the installation of the project means they would simply continue with the same approach as other developers and use transient workers rather than local. • The expenditure and investment will provide **very little benefit for the local economy**. • Business Rates will be received by the neighbouring local authority where the substation is located, ie Stockton Borough Council, whereas Darlington Borough Council, within whose boundaries the proposed sites are located, will receive no Business Rates. Therefore, the affected communities will receive no direct or indirect benefit in this respect. • See also BVAG (Sean Anderson) written-up oral submissions on **Socioeconomics & socioenvironmental impact / benefits** on p. 18 of BVAG's Deadline 6 Post-hearing Submissions to the ExA 6th December 2024 [**REP6-036**] under heading **ISH6 Landuse and Socioeconomics Wednesday 27th November 2024**. • Jurgen Maeir the Chairman of Great British Energy has stated that Renewable Energy Developers **must** demonstrate clear tangible and demonstrable benefits to local communities where Renewable Developments are proposed. • The Applicant has suggested that the development would power 70,000 homes: BVAG would like confirmation that the electricity generated, once fed into the national grid, could be used for any residential or commercial purposes and not exclusively homes. If the Applicant is unable to confirm that the power generated is for the exclusive benefit of 70,000 homes, then this is yet another demonstration of the Applicant's misrepresentation. See also comments about significant adverse effects on the local community's health, well-being and quality of life.
Soil: Effects / Benefits?	Re REP6-020 / RWE 8.26: RWE response to matters raised at ISHs 5-7 & OFHs 3-4. The Applicant's response to this matter (on p. 16 of 32) includes, at Appendix A.1, a report which '*shows that there is comprehensive, quantitative evidence of the benefits to soil health from converting from arable land to pasture*'. However, **this does not address the point BVAG was making**, ie that 'resting' arable soil for long periods of time (over 5 years) decreases levels of fertility. The Applicant's stated intention is to restore the land to its previous use (ie arable agriculture). The question is, how would the current levels of soil fertility / the ALC grade be restored at decommissioning?

	If the current ALC grade could not be achieved, then the development would have resulted in the permanent loss of over 20ha of BMV land, when Natural England assumed the loss would be temporary. BVAG does not agree that 'restoration to agriculture' at decommissioning would be a 'significant' scheme benefit, as claimed by the Applicant: this is simply restoring the site to its original condition. Indeed, this also suggests that the development would result in associated **significant disbenefits**. Paras. 4.2.56 – 88 of doc. REP2-044 set out BVAG's position on effects on soils: in summary, the evidence indicates a high probability of long-term adverse effects on soil quality and fertility. Regarding the purported benefits of 'leaving land undisturbed' (or 'resting' soil), doc. REP2-044 paras. 4.5.11 – 15 explain that the benefits of resting are only temporary, and it is not good for arable land to be left uncultivated for more than 3 – 5 years if the aim is to maintain fertility for future use: instead, it is necessary to practice regular crop rotation. Regarding the Applicant's claims about the proposed development resulting in 'significant beneficial effects' on soils at decommissioning, at ExAQ1 GCT 1.20, the ExA asked the Applicant to explain how it arrived at this position and what the key benefits are. The Applicant's response to the question (at doc. REP2-007 (RWE's doc. 8.6 Responses to ExAQ1)) does not provide a direct answer to the question, simply referring the ExA back to ES Chapter 9. Nor is the Applicant's Deadline 8 response to this matter satisfactory. BVAG would like to know whether the ExA considers it has sufficient evidence to justify the Applicant's claims.
Soil Sampling	BVAG has raised concerns about this matter, but the Applicant's approach is to keep referencing the soil sampling they carried out and refuse to acknowledge the known expertise from local farmers about the validity of the soil sampling carried out. When questioned at the Hearing, the Applicant's soil sampling expert would not acknowledge that the soil sampling may not have been representative of the whole area, ie the lab verification was only carried out on a small number of samples which were selected by the company carrying out the survey. There was **no independent cross-check**.
13. Noise and Vibration	
BVAG and local residents remain extremely concerned about the **unacceptably high levels of noise and vibration** that receptors would experience during construction, both along the construction routes and on site, particularly in areas located close to residential properties where large-scale engineering works, piling and other operations would disrupt amenity and tranquillity for sustained periods of time. The Applicant's background noise surveys must reflect the high levels of tranquillity in the area to ensure an accurate noise assessment. BVAG requires this to be examined. BVAG consider the assessment of effects are focussed on a small number of receptors, and temporary in nature, and RWE offer inadequate or no form of mitigation.	
14. Resource and Waste Management	
BVAG has no further comments on this topic at this stage.	

15. Traffic and Transport	
Highways / Traffic / Transport / Access	• Traffic impacts formed a **major concern amongst residents** at a community meeting just prior to the close of the Examination. The highways and traffic information provided by the Applicant has failed to reduce the fears and concerns of road users, whether in cars, on foot, cycling, or horseback. • The Applicant has not properly or adequately assessed effects arising along the proposed construction routes and at the proposed access points, including on landscape and views, biodiversity, recreational and residential amenity. • Parking and transport of workers to and from the works sites is particularly poorly thought through in the **Construction Traffic Management Plan.** BVAG was pleased to see the ExA's inquiry into this at the **ISH3 Hearing**. • Swept path analysis plans, and plans showing the required visibility splays and where removal of trees and hedges would be necessary, are required. • Also, it must be established whether effective mitigation is possible to deal with the issue of potentially dangerous conflict between construction traffic and regular road users, which include people with children, the elderly, cyclists, and equestrians (some with horses which are highly-strung, unpredictable, and extremely sensitive to sudden 'surprises' – see Horse-related topics). • The Applicant was given details of BVAG's preferred access positions to sites, but they have not responded to BVAG's suggestions and comments. Importantly, none of BVAG's proposals would add additional costs to the build budget, but they would reduce impact on residents **and** provide savings in the Construction traffic costs. This is an example of the Applicant's disregard for meaningful community consultation (see Consultation / Community Engagement topic under the heading 1. General and Cross-topic Questions). • During the ExA's visit to Bishopton, BVAG (Sean Anderson) pointed out how the hedges must be cut to maintain sightlines where Mill Lane meanders – yet the developer proposes that hedge heights should increase to mitigate the visual impact of the panels. The reason that hedges are cut in these locations is because there have been accidents in these locations. • The Applicant was challenged during a Hearing regarding the transport of workforce to the various construction sites. They cited the use of minibuses, etc. They tried to 'move' this matter to the contractor's traffic management plan – this is a significant matter and should be dealt with as part of the Application process. • BVAG, especially the Brafferton community, is **extremely concerned** about the adverse effects arising from the proposed access routes and entrances into Areas A North and South. It is clear that these were neither understood nor properly considered in the EIA – the LVIA did not consider these in any detail at all. • BVAG and the Applicant do **not agree** whether Brafferton's landscapes and communities would experience significant adverse landscape and visual effects. BVAG's view, which it is understood is shared by DBC's landscape expert, is that there is no doubt that effects would be significant adverse.

	• From BVAG's perspective, the difference of opinion stems mainly from the Applicant a) not having carried out sufficient baseline study and analysis to recognise Brafferton's landscapes' high sensitivity (as described in Section 4.2 of REP-044, in large part due to its high-value historic landscape character and associated biodiversity), and b) underestimating levels of adverse effects due to not having understood the cause and nature of impacts and effects. • Should the Application be granted consent, it is **imperative** that a much more granular assessment of effects (in accordance with the EIA Regulations and relevant guidance, to include proper baseline survey and analysis) is carried out in Area A, and that robust, effective and appropriate mitigation and / or compensation measures are secured and implemented. • Note that the same concerns and recommendations apply to other Areas.
16. Water Environment and Flood Risk	
Flooding	Flooding issues have not been properly addressed. **The proposals would exacerbate flooding around Bishopton**. The Applicant's Flood Assessments are inadequate, relying on flood risk assessments for three watercourses some distance from Bishopton. The FRA does not resonate with the 'lived experience' – as demonstrated by the submissions / representations already made. However – of more specific concern is the impact of the floods in and around Bishopton to the residents of Downland Farm, West House, Glebe Farm, Bishopton Mill, etc. Mill Lane often floods: when it does, DBC close the Lane. This leaves us with only one access / egress point, via Whitton. However, during at least one occasion recently, the watercourse at Bishopton Mill breached its banks, making it impassable – this means that emergency services cannot get to Downland Farm, West House, Glebe Farm, etc. The flooding situation is being ignored by the Applicant. It must be recognised that the combination of climate change and the proposed development is only going to exacerbate the **serious risks to residents**. Note that the location of equipment in fields would possibly require elevation to prevent flood damage. Will the Applicant confirm their intention to include this in their design? Re the above, the Applicant's LVIA states that the visual effects assessment ZTV target heights (panels and substation complex / elements) were modelled based on current ground levels, as no notable changes to ground levels are proposed. However, that appears not to be the case. Could the Applicant confirm?

17. Cumulative Effects	
Cumulative Effects	BVAG's position on cumulative effects set out below. The Applicant's responses to date have not altered this position. 1) BVAG believes that whilst focus on the details is very important, it is also very important not to lose sight of the **vast size and scale** of the proposed Byers Gill development, as seen and experienced within the wider context. The site is c. 490ha in extent; it stretches some 12km from west to east, and c. 3km from north to south, extending across good quality open rural landscapes lying between the urban centres of Darlington, Newton Aycliffe and Stockton-on-Tees. This is best appreciated by travelling through and around the area. The ExA is now familiar with these landscapes, but ES Figure 1.1 Location Plan [APP-038] provides a helpful overview of scale. 2) When considering the cumulative effects of the Byers Gill scheme with other similar developments, again, the scale of development and associated effects is difficult to comprehend: see for example ES Figure 13.1 Long List of Committed Developments [APP-102], and the 'cumulative west to east journey map' produced by Mr Smith of BVAG and submitted to the ExA following his verbal description during ISH7 (Appendix BVAG-6-B). 3) It must also be highlighted that the number of solar developments being applied for in the area continues to increase beyond the numbers included in the Applicant's cumulative effects assessment. In fact, BVAG is aware of a number of other proposals currently being discussed with local landowners. 4) RWE have declared the number of panels in this development to be 505,386. 97 hybrid and inverter containers will add up to more than 1km of containers spread across this one site. It is not an exaggeration to say that combined with the numerous other developments being proposed there could be more than a million solar panels concentrated in this small rural area. It is difficult to see how the Applicant can justify the conclusion that there would be a negligible cumulative effect. 5) As a local resident, Mr Smith cited the fundamental change in nature of the entire area from rural to that of a renewables power generation hub caused by the cumulative effect of so many developments. Most journeys in and around the area will be dominated by solar power developments with little or no escape from them. 6) It is also important to consider the definition of the term 'cumulative' as used in the context of EIA / LVIA, and how cumulative effects should be assessed. **GLVIA paras. 7.9 – 7.16** are relevant, and may be helpful in this regard. 7) In the Landscape Statement of Common Ground (LSoCG) between BVAG and the Applicant, it is **agreed** (at para. 2.3) that '*the Proposed Development would give rise to significant adverse residual operational… **cumulative** effects on landscape character, settlement character, and visual amenity*'. 8) At para. 3.5, under Matters Not Agreed, the LSoCG states that '*Whilst there is not agreement about certain aspects of methods, and all of the LVIA's predicted levels of effects on landscape character areas, settlements, and visual receptors, these are not considered to be important-enough factors in the decision-making process to warrant detailed discussion*'. This includes the LVIA's cumulative effects assessment method, which was the focus of discussions between the Applicant's and DBC's landscape experts. In principle, BVAG

	understands and agrees with DBC's landscape expert's confusion, and doubts / concerns about flaws in the LVIA's method and the justifications offered by the Applicant's landscape consultant. 9) BVAG's opinion is that the Applicant's assessment of the cumulative effects of **other** topics (such as transport, hydrology, biodiversity, soils, agriculture, heritage, amenity and so on) is inadequate and potentially flawed, and effects would be higher than stated and significant in many cases. 10) It is important to note that where significant adverse effects of various types / on various receptors are predicted to arise from development of the Byers Gill site on its own, it follows that in combination with other schemes – those which currently exist and those already consented / likely to be – the levels of effects would be even higher, so 'even more significant'. 11) Finally, BVAG would like to draw the ExA's attention to REP6-051. This is Bishopton resident Mr Robert Bowes' written submission of oral evidence given at ISH7 during discussions on Cumulative Effects. It summarises concerns about the significant number of solar developments that exist / are proposed in this area, and how this is strikingly disproportionate to the rest of the UK. It asks, '*How much more renewable energy can such a small rural area provide for the wider area, isn't it time for other areas in the combined counties to do their part?*'

Bishopton Villages Action Group Closing Statement

23rd January 2025

A proposal for the vast construction of glass and steel across miles of attractive countryside and farmland has been imposed on the community without invitation. Its purpose of generating renewable energy will create more environmental harms than its proponents claim for its justification.

Whilst the applicant has progressed its plans over a number of years, the community has been forced to engage and react. The 100s of documents and pages of assessments and evidence has been submitted whilst the community has had to review and respond whilst working and leading busy lives, and without the benefit of a large team of consultants and paid advocates to respond.

Notwithstanding the imbalance in the process, the importance of local community opinions and experience is embedded throughout the planning system. Through a series of written submissions, and attendance at the Hearings, the community of Bishopton and the surrounding villages affected by this scheme has set out its strong opposition to this proposal.

It is a measure of the extent to which the local residents value their community and the high quality of the countryside we seek to protect that has led to a vigorous and widespread objection across a range of issues. The community is grateful that the ExA has recognised the above, and that the community's concerns have been listened to and taken seriously by the ExA throughout.

The application consists of a vast array of assessments and submissions which advocate and indeed sterilise the harm created by this proposal, and the damage, disruption and scars it will leave on the landscape, flora, fauna and local people.

At its very heart the proposal is flawed. It is hard to see how, for example, the proposal would accord with NPS EN-1 which seeks to establish the need for “good design" in energy infrastructure:-

▪ *Create high quality, inclusive design which is also fit for purpose and sustainable.*

▪ *Create sustainable infrastructure which is sensitive to place.*

▪ *Be a means through which many NPS policy objectives can be met; and*

▪ *Mitigate adverse effects of a project.*

(Para 4.7 NPS EN-1 the Governments over riding policy for energy infrastructure).

In particular BVAG cannot see how the selection of Byers Gill Solar can be seen in any way to “avoid, reduce, mitigate or compensate for any adverse impacts”. The applicant has failed in the first instance to properly investigate alternative locations, or indeed alternative methods of generating this electrical energy. Government policy is for an impact hierarchy - that impacts should **first be avoided** before being reduced or mitigated.

The applicant has therefore failed at the first criteria.

In seeking consent for this proposal, the applicant has sought to emphasise the importance of the transition to renewable energy, resulting from Government plans for Net Zero and wider international concerns of climate change. However, its own plans for manufacturing thousands of tons of steel, and PV solar panels in China, and shipping them halfway across the world have failed to assess its own carbon footprint, or emissions. Its own emission assessments of scope 3 emissions, are partial, flawed and follow the same pattern which the majority of its assessments show. There are no assessments of

social impacts of the production supply chains required by sustainability goals. Widespread concerns of solar supply chains are not mentioned in the application though they are relevant.

Indeed when the community has dug further into any assessment – whether on **heritage, landscape, ecology, construction disruption, traffic, flooding, noise pollution, cumulative impacts** – the same pattern emerges: the application assessments have become vehicles of advocacy, where facts are missed, evidence is partial or entirely absent, adverse impacts are underplayed and conclusions biased.

Too often the lack of harm of the proposal becomes a 'benefit'. Harms become 'insignificant' and are then filtered through a methodology to 'no harm'. This has also been recognised by Darlington Borough Council in their own assessment of landscape harm which complements BVAG's own landscape reviews and conclusions.

The applicants own words demonstrate a seeming inability to provide any form of objective assessment and a recognition of the damage and harm which its proposals create. Notwithstanding any benefit of renewable energy this proposal does not

- *Protect and enhance existing features characteristic of the local landscape character;*
- *Develop a strong green infrastructure network and improve habitat;*
- *Enhance the Public Right of Way network;*
- *Protect and enhance the biodiversity within the Order Limits;*
- *Enhance public amenity provision; and*
- *Protect and enhance protected species.*

(Extract from RWE's Design Approach Document)

The above is an example of how an alien, industrialised, energy installation surrounded by miles of security fencing, cctv and security guards, with its noise, lights, and machinery sprawling over

thousands of acres of good quality farmland, and villages – is described as an '*enhancement of public amenity provision*'. Absent in the application is an assessment of accounting of the damage that is left behind along the supply chains from China and Africa for the production of the energy generating installation. Likewise, downstream accounting of where a million solar panels will end up – a worst case scenario assessment might explore the impact of shipping, to landfill in Asia or Africa, or a waste ground being scavenged by children for scrap metal.

The application is silent on these matters despite their implication for climate change and sustainable development goals.

So often these important issues are absent within the scope of the assessment, despite being requirements of both UK EIA Regulations and the EU Directives and International Agreements which gave birth to EIA and Sustainable Development goals. The practise of stepping over such important issues or leaving them for future generations after a 'temporary' 40 years has become widespread practise in the solar industry. However, the community would request the ExA to consider the full range of environmental impacts both direct and indirect in deciding the planning balance and compliance with UK planning law and policy.

Bishopton Villages Action Group understands the need for a transition to renewable energy sources and does not object to Solar power generation; in fact, many of the residents already host solar panels on their homes, and the area also hosts several wind power generation schemes. The objection is to the sheer size and industrial scale of Byers Gill in combination with the multiple solar power generation schemes already consented, creating solar saturation within a small area.

Bishopton Villages Action Group, representing Bishopton and the surrounding villages is unanimously opposed to the development of Byers Gill Solar Power generation plant.

Closing Statement Bishopton Villages Action Group (BVAG) a registered Interested Party (IP Reference Number 200048675) for Examination of EN010139 – Byers Gill Solar Project

This development will irrevocably impose a significant change on our day-to-day lives. For many generations this area has been an attractive and peaceful rural environment which will be lost forever. With Bishopton being a Conservation Village it is a local/regional historical and cultural asset.

During the examination RWE have agreed Byers Gill will cause significant adverse effects to the community. As representatives of the community we have shown that RWE has not proven, consulted, or demonstrated that this location is the most suited and only alternative for another solar power generation development. RWE have relied upon incorrect, inaccurate and misrepresentative information to support their application and they have obfuscated when responding to robust interrogation of the basis of their application.

We would respectfully urge the examining authority to recommend to the Secretary of State that consent be refused for this proposed solar project at Byers Gill.

This Closing Statement is made for and on behalf of the Bishopton Villages Action Group.

Andy Anderson MRTPI FRGS

Bishopton Villages Action Group (BVAG) is a registered Interested Party (IP Reference Number 200048675) for Examination of EN010139 – Byers Gill Solar Project