Green Hill Solar Farm

EN010170

Applicant's Response to Stop Green Hill Solar

Prepared by: Lanpro Services

Date: January 2026

Document Reference: EX4/GH8.1.29

The Infrastructure Planning (Examination Procedure) Rules 2010

Rules 8(1)(c)

Contents

Issue Sheet

Report Prepared for: Green Hill Solar Farm

Examination Deadline 4

The Applicant's Responses to Stop Green Hill Solar

Prepared by
Name: Anna Rowan / Charlotte Astrella
Job title: EIA Consultant / Senior EIA Consultant

Approved by
Name: Jane Crichton
Job title: Associate Director

Revision	Date	Prepared by	Approved by
Original	14/01/2026	AR / CA	JC

1 Introduction

1.1 Purpose of the Document

1.1.1 This document provides Green Hill Solar Farm Limited (the 'Applicant's') response to Written Representations (WRs) submitted by Stop Green Hill Solar to the Planning Inspectorate (PINS) by 17 December 2025, relating to Examination Deadline 3 for the Development Consent Order Application (the 'Application') for Green Hill Solar Farm (the 'Scheme').

1.1.2 The Applicant's Response to representations made by Interested Parties have been responded to separately in **GH8.1.30 Applicant Response to Deadline 3 Submissions [EX4/GH8.1.30]**.

1.1.3 A total of 6 WRs and other documents were submitted to the Examining Authority by Stop Green Hill Solar in response to the Scheme. WRs were published on 18 December 2025 to the Planning Inspectorate's website (PINS reference: EN010170).

1.2 Structure of the Report

1.2.1 This document provides a response from the Applicant to the matters raised in those WRs and other documents received.

1.2.2 References to the Application documentation are provided in accordance with the referencing system set out in the Planning Inspectorate's Green Hill Solar Farm Examination Library.

1.2.3 Revision suffixes have also been attached to documents which, since submission, have been revised for and resubmitted by Deadline 3 to the Planning Inspectorate.

Table 1.1: List of Acronyms for Submission Documents

Acronym	Document Name
DCO	Development Consent Order
CR	Consultation Report (shorthand for appendices)
EIA	Environmental Impact Assessment
ES	Environmental Statement
BNG	Biodiversity Net Gain
FRADS	Flood Risk Assessment and Drainage Strategy
PRA	Preliminary (Geo-Environmental) Risk Assessment
OCEMP	Outline Construction Environmental Management Plan
OOEMP	Outline Operational Environmental Management Plan
ODS	Outline Decommissioning Statement
OLEMP	Outline Landscape and Ecological Management Plan
OEPMS	Outline Ecological Protection and Mitigation Strategy
OSMP	Outline Soil Management Plan

Acronym	Document Name
OBSSMP	Outline Battery Storage Safety Management Plan
OSSCEP	Outline Skills Supply Chain and Employment Plan
OCTMP	Outline Construction Traffic Management Plan
OPROWPPMP	Outline Public Rights of Way and Permissive Paths Management Plan
CDPP	Concept Design Parameters and Principles
EqIA	Equality Impact Assessment
HRA	Habitat Regulations Assessment
OOTMP	Outline Operational Traffic Management Plan

2 Applicants Response to Representations made by Stop Green Hill Solar

2.1 Comments on Matters Raised in the Applicant's Reponses at Deadline 2

Document reference: [REP3-097]

Table 2.1: in relation to GH8.1.13 Applicant Responses to Written Representations [REP2-048]

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-001	Alternatives and Design Evolution Energy Need	Site Selection SGHS-001 (page 222)	The response of the Applicant simply restates what is set out in the in ES Chapter 5: Alternatives and Design Evolution of the ES [APP-042]; and ES Appendix 5.1 Site Selection Assessment of the Environmental Statement Revision A [EX1/GH6.3.5.1_A]. The response does not address the matters raised by SGHS that: a. That the proposal is not "close to" a grid connection as per EN-3 2.10.25 – and is therefore not compliant with NPS guidance; b. That is design is driven by a requirement to deliver 500MW scheme – rather than proper planning policy considerations; c. That the scheme is driven by land ownership considerations rather than proper planning considerations **Proximity of the grid connection EN-3**	Environmental Statement **Chapter 5: Alternatives and Design Evolution of the ES [APP-042]**; and **ES Appendix 5.1 Site Selection Assessment of the Environmental Statement Revision A [EX1/GH6.3.5.1_A]** outline the approach to site selection undertaken by the Applicant. NPS EN-3 paragraph 2.10.25 does not state that the site should be close to the Point of Connection but instead states that "*applicants may choose a site based on nearby available grid export capacity.*" The first stage of the site selection process, in having a grid connection is key as this defines the feasibility of the Scheme. Without a defined and agreed grid connection, the Scheme would be potentially unfeasible. The Point of Connection is the starting point for the site selection process, as recognised by National Policy Statement EN-3 paragraphs 2.10.22 to 2.10.25 a viable grid connection is an essential material consideration for proceeding with a development and is instrumental in defining

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			para.2.10.25 should be read in context. • Para 2.10.24 refers to availability of network capacity, and the distance from the solar farm to the existing network (footnote 84) can have a significant effect on the commercial feasibility of a development proposal (footnote 84 states that the route and type of terrain traversed by the cabling linking the solar project to the grid connection may also have an impact on the project's viability). • Para 2.10.25 states that to maximise existing grid infrastructure, ***minimise disruption to existing local community infrastructure*** or biodiversity and reduce overall costs, ***applicants may choose a site based on nearby available grid export capacity*** (my emphasis). **Whilst proximity to a connection will be a benefit for an applicant, it is also necessary to minimise impacts on the community.** • EN-3 refers to EN-5 at Para 2.10.21 in the context of network connection. EN-5 para 2.2.26 refers to the locational issue of grid connection but this constraint does not exempt applicants from their duty to consider	the search area. This approach is also consistent with the approach taken in numerous solar DCOs examined and approved to date. Sections 8.4 and 8.5 of the **Statement of Need [APP-556]** explains that the proposed point of connection is suitable for the Scheme to export the power it generates to the National Electricity Transmission System. Further, that there are limited existing and available alternative points of connection within 50km of the existing Grendon substation. Therefore, given that the opportunities to bring large-scale solar schemes located in this area to grid are limited, it is clear that the development of a scheme which makes use of existing and available infrastructure is rational when considered against the urgent need for significant new renewable generation capacities to connect in the next decade to support the drive towards a clean power system and net zero by 2050. The Applicant considers a 20 km cable route to be a practical and commercially viable distance for a scheme of this scale. This was the maximum distance the Applicant sought from the Point of Connection, recognising that greater separation would undermine commercial feasibility while also needing to

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			and balance site-selection considerations set out in NPS and the policies on good design and impact mitigation (detailed in sections 2.4-2.9). **There is no guidance in NPSs as to what "proximity" is. There is not endorsement of 20 Km (or anything like such a distance) as being in proximity. The potential consequence of development which is not in proximity to a grid connection is harm to the community. Demonstrable harm arises in this case.**	identify a site with lower environmental impacts. Throughout the site-selection process, several factors including environmental and planning considerations were assessed at each stage, to minimise potential harm. As suggested in response to SGHS-001 of the **Applicants Responses to Written Representations at Deadline 1 [REP2-048]**, key influencing factors suggested in NPS EN-3 have been considered throughout the site selection process. The Applicant recognises that the availability of willing landowners was a factor in the site selection process. Without willing landowners, compulsory acquisition would have been required, which the Applicant has sought to avoid in line with guidance and good practice. The proposed Sites fall within ten land ownerships, a relatively small number that reduces project complexity, legal risk, and cost. The availability of landowners that are willing to enter into voluntary agreements is an important part of the site selection process. Compulsory acquisition powers can only be included in a DCO where they can be justified for the Scheme. Therefore, the availability of willing landowners reduces the need to rely on the use of compulsory acquisition powers to deliver the Scheme. Please refer to the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				Statement of Reasons [APP-019] for a full explanation of why compulsory acquisition powers have been included in the **Draft DCO Revision A [REP1-008]** and the reasons why this is justified Willing landowners were preferential for solar development sites as it is considered beneficial to complementing agricultural activity, as highlighted in Powering Up Britain: Energy Security Plan. Achieving such complementary land use depends on constructive engagement with farmers who are prepared to host solar infrastructure. Minimising environmental impacts was a key principle across the site selection process; however, the Applicant also sought to avoid undesirable compulsory purchase, thereby reducing the adverse effects on unwilling landowners and enhancing the socio-economic benefits of working collaboratively with willing landowners. Please also refer to responses to SGHS-002 and SGHS-003 in the **Applicant's Responses to Written Representations at Deadline 1 [REP2-048]**.
SGHS-002	Alternatives and Design Evolution	Site Selection SGHS-001 (page 222)	The chronology of the design process: • No alternative grid connection points were considered because of the immediate availability of 500 MW capacity at Grendon (ES Chapter 5,	As set out in **Environmental Statement Chapter 5: Alternatives and Design Evolution [APP-042]** and **ES Appendix 5.1 Site Selection Assessment of the Environmental Statement Revision A**

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			para 5.6.3) • 100ha required to deliver 50MW hence 1,000ha necessary for 500MW – plus 10% to allow for additional mitigation measures. (ES Chapter 5, para 5.6.5) • Land close to Grendon was considered. The area of search was extended until sufficient land was identified with willing landowners within a 20km radius (ES Chapter 5, para 5.6.6). The 20km distance is justified as being the maximum distance feasible from Grendon, balancing this against the need to find a site with reduced environmental effects (supported by the site selection exercise) (ES Chapter 5, para 5.6.9). It is quite clear reading ES Chapter 5 paras 5.6.6 to 5.6.10 that land ownership was the key determinant not planning or environmental considerations. The consequence is that avoidable harms arise to legitimate planning and environmental matters because the site selection process is landowner led. Planning and environmental matters are only addressed in Stage 2 of the site selection process.	**[EX1/GH6.3.5.1_A]** there is no standard methodology for the selection of sites for solar energy generating stations. The selection of the Scheme's proposed location has followed a five-stage site selection process, which has sought to identify sites that meet the legislative and policy requirements, whilst recognising the need for the Scheme to be commercially viable. Stage 1 looks at the identification of an area of search for potential sites. The Point of Connection is the starting point for this process, as recognised by National Policy Statement EN-3 paragraphs 2.10.22 to 2.10.25, a viable grid connection is an essential material consideration for proceeding with a development and is instrumental in defining the search area. As the grid connection offer specifies Grendon Substation as the Point of Connection, the Applicant proceeded to look at sites that could accommodate a solar project in proximity to this location. Based on the Applicants experience of developing utility scale solar projects, a larger site size of approximately 1,000ha necessary for a scheme of 500MW plus 10% to allow for additional mitigation measures to provide flexibility for the accommodation of

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			However, Stage 2 does little more than set out key planning considerations of topography; agricultural land classification; land designated of international and national ecological value; geological sites; nationally designated landscapes; and proximity to human receptors. The only commentary is for agricultural land (paras. 5.6.11 – 5.6.13). It states that all land of Grades 1, 2 and 3 was excluded (on the basis that the Natural England ALC maps do not distinguish between grades 3a and 3b land. Consequently, at Stage 2: • land with willing landowners had been identified • the area of search has been defined by the availability of land • designated sites have been excluded • Grades 1, 2 and 3 agricultural land was excluded • Land close to human receptors was excluded (although no information on the parameters is provided) Stage 3 identifies two potential development areas ("PDA"): • PDA 1: Yardley Hastings to Olney (1,167ha)	constraints that may become known through the design development process. Stage 2 included the mapping of planning and environmental constraints within the 20km area of search, identified through a review of relevant national planning policies. Constrained areas such as designated areas of land were excluded from the area of search and are therefore not considered as suitable locations for the Scheme. At Stage 2, all land classified as Grades 1, 2 and 3 was excluded. The Applicant therefore focused on identifying suitable sites within Grade 4, Grade 5 or unclassified land that was not constrained by other planning or environmental factors. This approach was necessary because the Natural England ALC maps do not distinguish between Grades 3a and 3b. The results of Stage 2 are identified in Figure 5.2 [APP-223] of **ES Appendix 5.1 Site Selection Assessment of the Environmental Statement Revision A [REP1-037]**. Figure 5.3 [APP-224] shows the output from this sift mapping, identifying areas of unconstrained land which have not been excluded from the Stage 1 and 2 sifting exercise. Stage 3 of the assessment then applied key operational criteria for large scale solar

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			• PDA2: Higham Ferrers to Bedford (1,113ha) Stage 4 is an evaluation of the identified PDAs and concluded that both were unsuitable. Stage 5: widening the search to consider BMV land within the 20km search area (bearing in mind the search area is defined by the availability of land with owners willing to sell)	development - site size and land assembly; and site topography to the areas of unconstrained land identified at stage 2. At this Stage two Potential Development Areas were identified. Stages 2 and 3 of the assessment have involved GIS mapping to exclude environmental and planning constraints including all Grade 1, 2, and 3 agricultural land and apply operational considerations such as development area and topography within the 20km area of search. Stage 4 assessed further the suitability of the two PDAs identified in Stage 3. Each PDA was evaluated against a series of planning, environmental and other operational assessment indicators which were derived from national and local planning and environmental policy objectives and the operational requirements of the Scheme. Stage 5 looked at widening the search area to include BMV agricultural land; potential development areas were identified by repeating stages 2 and 3 to sift through areas of BMV agricultural land. Three additional PDAs plus the Scheme were identified on Grade 3 agricultural land. All were evaluated against the same planning, environmental and operational criteria.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				Considering the location of the Point of Connection, and having regard to voluntary landowner negotiations, commercial viability, national planning policy and environmental constraints, the Sites and the overall scale of the Scheme are considered to be suitable. Please see the response to SGHS-001 above in regard to the benefit of having willing landowners.
SGHS-003	Alternatives and Design Evolution	Site Selection SGHS-001 (page 222)	Para 5.6.30 refers to the Farming Report (GH6.3.20.2) and para.5.6.31 states that land agents were contacted regarding potential willing landowners in the area – How does this square with Stage 1 – Para 5.6.6 states that the 20km area of search was defined by reference to willing landowners. The significance of willing landowners to the site selection process is emphasised in para.5.6.35 – plus an objective to compile a site with as few land ownerships as possible "…to minimise project complexities (including engineering, design and mitigation measures), legal complexities and project cost" Para. 5.6.36 states that "other areas of Grade 3 land (does not specify whether this is 3a our 3b) within the	Paragraph 5.6.6 explains that the 20 km radius was defined as the maximum distance within which a solar scheme of the required scale could feasibly be delivered. At this stage, "willing landowners" was not the determinant of the 20 km radius, but rather one of several practical considerations for the selection process within the radius of search. As outlined in the response to SGHS-001, willing landowners are preferred to limit impacts to agricultural businesses and as compulsory acquisition powers can only be included in a DCO where they can be justified for the Scheme. Therefore, the availability of willing landowners reduces the need to rely on the use of compulsory acquisition powers to deliver the Scheme which is positive. Natural England ALC provisional mapping does not define grade 3b land. The differentiation between grades 3a and 3b is not possible without specific on site soil

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			20km search area, were identified following the desk based review, but discounted due to a to lack of willing landowners and smaller land ownerships which were viewed as unviable due to project complexity. There is no evidence about viability before the examination.	surveys. The reasons for discounting sites is based on a number of factors as set out in paragraph 5.6.36 in **ES Chapter 5 Alternatives and Design Evolution [APP-042].** In regard to viability, as outlined in the **Grid Connection Statement [APP-557]** 'The connection offer was accepted in the form of a Bilateral Connection Agreement (BCA) between the Applicant and NESO, allowing for a Transmission Entry Capacity (TEC) of 500 MW (AC) export to and 500 MW (AC) import from the NETS. This was entered into in June 2021. The acceptance of the connection offer demonstrates that a connection at the Point of Connection is technically and financially viable.' Please refer to SGHS-005 for further information on viability.
SGHS-004	Alternatives and Design Evolution	Site Selection SGHS-001 (page 222)	In summarising the assessment of alternatives para 5.6.42 states that the selected sites are within ten land ownerships, and this small number of landowners is advantageous in terms of minimising project complexity, legal complexity and cost. The point is emphasised again in para 5.6.45 - the focus of the site selection process was on the large-scale landownerships which were identified by agents as having potentially willing	The **Farming Report [APP-571]** demonstrates that within the wider area the land is almost all in either the 20-60% BMV or >60% BMV category. It is notable that much of Northamptonshire, particularly to the north and southwest of Grendon, consists predominantly of higher grade land, with a mixture of Grade 2 and Grade 3 often with both Grade 2 and Grade 3 land in individual fields.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			landowners. Para 5.6.44 states the justification for not addressing unconstrained Grade 3 land because it was not considered proportionate. Consequently, within the area of search (defined by willing landowners) no consideration of whether more suitable land Grade 3b is available and there have been no consideration of whether other land not owned by the identified willing landowners would be more appropriate. The application cannot demonstrate the minimum BMV land is being taken to deliver the scheme. Para.5.6.67 – the benefits of a willing landowner… Initial site search omitted all Grade 3 land Appendix 5.1 para 2.2.3 Viability referenced in Appendix 5.1 para 2.2.7 and 2.2.8 Appendix 5.1 para 2.2.25: "Due to the large extent of Grade 3 agricultural land within the site area and in order to focus the search on available land. Land agents were contacted regarding potentially willing landowners within the area. The availability of willing landowners is an important consideration because it is	Para 5.6.44 states that *'It was not considered proportionate to consider in detail every piece of unconstrained Grade 3 agricultural land within the 20km search area identified through the site selection process due to the amount of land involved and the vast quantity of BMV land within the 20km search radius*'. Paragraph 5.6.45 should be read in conjunction with paragraph 5.6.44, and it states due to the reasons set in paragraph 5.6.44, the focus was on large scale landholdings not that the leading predominant factor in site selection was to have large scale landholdings. This approach is considered sufficient as suggested above the surrounding area consists largely of high grade land and therefore the use of BMV land has been justified and any losses minimised where reasonably possible. At this point surveys were not carried out so the assessment is desk based utilising data such as the Natural England ALC provisional mapping which does not define grade 3b land. The site selection assessment sought to avoid the use of Grades 1, 2 and 3 and so at stage 2, the assessment excluded Grades 1, 2 and 3 to identify suitable sites within areas of Grade 4, 5 or unclassified land that was

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			typical for the land to be leased rather than permanently acquired due to solar farms consisting of temporary structures. In the absence of willing landowners, it would be necessary to permanently acquire land through compulsory acquisition powers which the Applicant sought to avoid. It is also desirable to compile a site in as few land ownerships as possible to minimise project complexities (including engineering, design and mitigation measures), legal complexities and project costs." • Para. 2.3.11 The sites are within 10 ownerships • Para.2.3.12 Detailed ACL surveys undertaken on the land within the 10 ownerships. • Para.2.3.13 Focus of the site selection process was on large scale land ownerships with willing landowners. Stage 2: Appendix 5.1 Annex D: Assessment Indicators and Evaluation Criteria; and Annex E: Criteria Table no consideration of BMV Land	not affected by the other identified planning and environmental constraints. Best and most versatile agricultural land has been considered under land use for the assessment indicators and criteria (Annex D and E) which fed into the Potential Development Area Proformas (Annex F) where BMV was considered under land use also. Please also see the responses outlined in Appendix A of this document in regard to the site selection process and consideration of BMV.
SGHS-005	Alternatives and Design Evolution	Site Selection SGHS-002 (page 223)	There is no evidence before the ExA about feasibility or viability of the proposal. However, it is not suggested that a scheme could be designed	Section 6.10 of the **Statement of Need [APP-556]** explains that the solar sector is proven in operation with over 17GW of installed capacity already reliably delivering

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
	Energy Need		without a grid connection – the point is that no alternatives have been considered.	zero-carbon electricity to the UK's electricity system. The solar sector is also proven in delivery because of its short development duration and is therefore well placed to deliver to the urgent need for low carbon generation. NESO concluded that "Solar power generation remains one of the lowest cost options to meet our energy needs" (see Section 5.2 of the Statement of Need. Chapter 10 of the Statement of Need provides additional evidence that solar schemes are commercially and economically rational and that the Government's analysis concludes that the cost of solar delivered in 2025 is comparable or lower than the cost of other renewable technologies delivered in a similar timeframe, and that solar is likely to be cheaper in the future. Given the urgent and unprecedented scale of the need for new generation capacity, any alternative schemes or technologies in so far as they may have been considered, cannot be viewed as alternatives because they may also be needed (EN-1, Para 4.3.24). Additionally, it is consistent with EN-3 to "choose a site based on nearby available grid export capacity" (Para 20.10.17). A solar scheme cannot be effectively designed without a grid connection as the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				viability of the scheme is fundamentally dependent on the ability to export the electricity generated. Grid capacity, connection location, and connection feasibility are therefore primary constraints that shape the scale, configuration, and location of any solar NSIP. However, with the provision of the grid connection agreement with NESO to connect the Scheme to the NETS at Grendon substation other alternatives were not pursued. As outlined in the **Grid Connection Statement [APP-557]** 'The connection offer was accepted in the form of a Bilateral Connection Agreement (BCA) between the Applicant and NESO, allowing for a Transmission Entry Capacity (TEC) of 500 MW (AC) export to and 500 MW (AC) import from the NETS. This was entered into in June 2021. The acceptance of the connection offer demonstrates that a connection at the Point of Connection is technically and financially viable.
SGHS-006	Alternatives and Design Evolution Energy Need	Site Selection SGHS-003 (page 226)	ES Chapter 5, para 5.5.3: • Connection agreement for 500MW at Grendon sub station • To be delivered by 2030 • A smaller scheme would not deliver 500MW nor be delivered by 2030.	As outlined in ES Chapter 5 '*A land area of approximately 100 ha (including solar panels, landscaping and ecology mitigation land) is required to provide a solar scheme of 50MW (AC). To supply the grid connection offer of 500MW (AC), a total site size of approximately 1,000 ha (excluding cable*

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			What is not addressed is whether the scale of this proposal in terms of land take is necessary to deliver the 500MW. Reference to the statement on need APP/GH7.12)	*route) is needed. The Applicant sought to find a total site which is around 10% larger than is needed for the grid connection offer. Based on Island Green Power's experience of developing utility scale solar projects, a larger site size provides flexibility for the accommodation of additional mitigation measures and other constraints that may become known through the design development process'*. Section 7.6 of the **Statement of Need [APP-556]** describes key aspects of overplanting; and how an overplanted scheme can increase the utilisation of a grid connection (versus a scheme which is not overplanted). Given the urgent and unprecedented need for new generation capacity to come forwards (see in particular Section 3.9 and Table 1 of the **Statement of Need**) and the fact that existing and available grid connections are severely limited in the timeframes required (Section 7.4, Figure 17 and Section 8.5, Figure 30 of the **Statement of Need**), making the greatest possible use of the existing grid connection is necessary to support the delivery of the Government's plan for a Clean Power system and net zero by 2050. This is supported by EN-3 at Paragraph 2.10.47 which states: "The installed generating capacity of a solar farm will decline over time in correlation with the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				reduction in panel array efficiency … Applicants may account for this by overplanting solar panel arrays." Clearly larger schemes take more land than smaller schemes. However, the indicative layout of the scheme [**APP-196 to APP-206, REP1-107, REP1-109**] confirms that the ratio of installed generation capacity to land take for the scheme is within the illustrative ranges included in NPS EN-3 (2023) Para 2.10.17).
SGHS-007	Ecology and Biodiversity	Ecology and Biodiversity SGHS-004 (page 228) to SGHS-007 (page 232)	See separate document Response on Ecology	Please refer to the responses set out in **Section 2.2** below.
SGHS-008	Hydrology, Flood Risk and Drainage	Hydrology and Flood Risk SGHS-008 (page 238) To SGHS-015 (page 245)	See separate document Response on Flood Risk And Policy Compliance	Please refer to the responses set out in **Section 2.3** below.
SGHS-009	Hydrology, Flood Risk and Drainage	Hydrology and Flood Risk SGHS-008 (page 238) To SGHS-015 (page 245)	With regard to the location of the BESS at Grendon and the prospect of access to the BESS being prevented due to flooding evets on Station Road, the oral evidence of Mr Rigby for the Applicant at ISH 2 indicates that: • Hydraulic modelling shows that parts	The Applicant notes the comment. The hydraulic modelling referenced for Green Hill BESS was undertaken to quantify fluvial and surface-water flood risk at the BESS sites and their immediate interfaces with Grendon Brook, the Middle Nene and the adjacent ordinary watercourse network, and to inform

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			of Station Road are liable to flood – it is asserted that the proposed development would not lead to a great risk of flooding; • In response to a question raised by Richard Humphreys KC for SGHS, Mr Rigby stated that "the access" does not flood during the one in 10 year flood event. However, the area covered by the hydraulic model is the site of the Grendon BESS and land to the south west. This is illustrated on Figure 3: EA Grendon Brook Model Coverage of the hydraulic modelling technical note (RET-2052) [sic]. The model covers a limited are and does not include Station Road to the west where there is clear evidence of flooding which restricts passage on the road and access to the BESS site (see the Schedule of Flooding Incidents on Station Road REP1-228). The incidence of flooding on Station Road is evidentially greater than predicted by the model (because the model is concerned with a very small stretch of Station Road immediately adjacent to the BESS Site). This is of critical importance in the context of access for emergency responders in	a proportionate layout, finished levels and drainage strategy. This is set out in FRA Annex J (Green Hill BESS) [APP-395]. The model coverage is therefore proportionate to that purpose and is not presented as a catchment-wide simulation of all locations along Station Road beyond the Order Limits. Flooding incidents on Station Road recorded in the Schedule of Flooding Incidents (REP1-228) represent an existing baseline constraint on the local highway network. The Scheme is not predicted to increase flood risk on Station Road or elsewhere off site because post-development runoff from the BESS is controlled and attenuated in accordance with the drainage strategy. FRA Annex J (Green Hill BESS) [REP1-058]. Emergency access arrangements are addressed through secured BESS safety commitments. The Outline Battery Storage Safety Management Plan (OBSSMP) requires that internal access within the BESS is suitable for emergency response and that the detailed Battery Storage Safety Management Plan will be agreed with Northamptonshire Fire and Rescue Service prior to commencement. OBSSMP [REP1-143]. The likelihood of an emergency response to a BESS incident coinciding with a flood event that restricts passage on Station Road is extremely low, and in any

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			the event of an incident at the BESS site. With regard to flooding at Site F at Lavendon SGHS rely on the submissions of Mr Griffiths at ISH-2.	case would be managed through the Fire and Rescue Service's operational response and the detailed emergency plan, noting that the Scheme does not add to the baseline flooding constraint on Station Road. OBSSMP [REP1-143] and FRA Annex J (Green Hill BESS) [REP1-058].
SGHS-010	Cultural Heritage	Cultural Heritage SGHS-016 (page 248) to SGHS-027 (page 265)	The matters relevant to cultural heritage have been addressed in ISH-2 (and summarised in the Summary of Oral Representations by SGHS to ISH-2). The key point is that the approach to site selection does not minimise impacts on designated and non-designated heritage assets. The assertion that the proposal cannot be amended to reduce the levels of harm because it would impact adversely on the viability of the project is not supported by any evidence whatsoever.	The Scheme's design has evolved through an iterative process through ongoing collaboration between the Applicant, the design team, and the environmental consultants. As outlined in **Chapter 5: Alternatives and Design Evolution [APP-042]**, preliminary layouts were developed with support of early surveys, data collection, and the scoping of environmental topics and receptors. A summary of the design evolution is presented in Tables 5.8 and 5.9 of **Chapter 5: Alternatives and Design Evolution [APP-042]**. The Scheme design has been established to minimise impacts to Heritage Assets. Where an impact was identified, solar panels have either been removed or offset away from assets and enhanced screening of existing hedgerow and tree belts has also been proposed. **ES Chapter 12: Cultural Heritage [APP-049]**, supported by **ES Appendix 12.1: Heritage Statement [APP-110 to APP-120]**, has identified a moderate adverse residual

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				effect would occur as a result of the Scheme to two Conservation Areas (Mears Ashby and Easton Maudit Conservation Areas) and two Listed Buildings (Grade I Listed Church of St Peter and St Paul (NHLE 1189610) and Grade II* Listed 22 High Street (NHLE 1040784)). The Applicant considers that mitigation measures have been carefully considered and are reasonable and proportionate. As such, the Applicant considers the mitigation proposed has reduced harm to the lowest achievable levels.
SGHS-011	Landscape and Visual Impact	Methodological Concerns SGHS-028 (page 265)	The matter of landscape 'fabric' and the failure to assess effects on the overall character of the sites is explained in REP1-195 SGHS/CT.1 Landscape and Related Matters Statement, paras. 2.3.2 – 20. It would be helpful if the Applicant could respond to the specific points raised. The matters of not identifying national and local character areas / types as landscape receptors, and scoping out effects on NCAs, is explained in REP1-195 SGHS/CT.1 Landscape and Related Matters Statement, paras. 2.3.21 – 31. It would be helpful	The LVIA **[APP-045]** has been undertaken with consideration of the appropriate and relevant guidance and robustly assesses both the landscape and visual effects of the Scheme independently to ensure both the impacts and effects on the fabric and character of the landscape are taken into account as well as the views and visibility. A detailed LVIA methodology that conforms to the landscape Institutes Guidelines for Landscape and Visual Impact Assessment (GLVIA3) is included within ES Appendix 8.1 **[APP078 & APP079]**, which has been progressed and agreed with the Local Planning Authorities. Please refer to **[EX4/GH8.3.1_A]** North Northamptonshire

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			if the Applicant could respond to the specific points raised.	Council Statement of Common Ground_DRAFT where the methodology is agreed. It is worth noting that GLVIA3 is not prescriptive, only providing guidelines for the approach to Landscape and Visual Impact Assessment (LVIA). This allows for some degree of professional differences in approach to LVIA to be incorporated into methodologies for LVIA, however the core approach and principles of any LVIA must align with GLVIA3. As stated, the Methodology for the LVIA has been progressed and agreed with the Local Planning Authorities.
SGHS-012	Landscape and Visual Impact	Assessment Criteria SGHS-029 (page 266)	These matters are explained in REP1-195 SGHS/CT.1 Landscape and Related Matters Statement, Section 2.4. It would be helpful if the Applicant could respond to the specific points raised.	The Applicant notes this comment. Please see response to SGHS-011 above.
SGHS-013	Landscape and Visual Impact	Landscape Sensitivity & Value SGHS-030 (page 266)	These matters are explained in REP1-195 SGHS/CT.1 Landscape and Related Matters Statement, Section 3. It would be helpful if the Applicant could respond to the specific points raised.	The Applicant notes this comment. Please see response to SGHS-011 above.
SGHS-014	Landscape and Visual Impact	Mitigation & Enhancement	These matters are explained in REP1-195 SGHS/CT.1 Landscape and Related Matters Statement, Section 4.	The Applicant notes this comment. Please see response to SGHS-011 above.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
		SGHS-031 (page 267)	It would be helpful if the Applicant could respond to the specific points raised.	
SGHS-015	Landscape and Visual Impact	Visual Effects SGHS-032 (page 267)	The Applicant does not appear to have included comments on REP1 195 SGHS/CT.1 Landscape and Related Matters Statement, Section 6, which deals with effects on landscape character. It would be helpful if the Applicant could respond to the specific points raised in that section. Visual effects matters are explained in REP1-195 SGHS/CT.1 Landscape and Related Matters Statement, Section 7. It would be helpful if the Applicant could respond to the specific points raised	The Applicant notes this comment. Please see response to SGHS-011 above.
SGHS-016	Landscape and Visual Impact	Amenity & Health Impacts SGHS-033 (page 268)	Applicant's response is noted. It confirms the assumption that the proposed development would result in adverse effects on the local rural economy. It would be helpful if the Applicant could respond to the landscape and visual points raised. See also other comments and responses about effects on amenity and health.	The Applicant notes this comment. Please see response to SGHS-011.
SGHS-017	Landscape and Visual Impact	SGHS-034 (page 269)	See SGHS comments about this matter at SGHS-028 above.	Please refer to the responses set out at 'SGHS-011' above.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-018	Glint and Glare	SGHS-035 (page 270)	Matters relating to glint and glare are explained in REP1-193 SGHS/CT.3 Appendices to the Landscape and Related Matters Statement, Appendix CT-I. It would be helpful if the Applicant could respond to the specific points raised. Forest of Dean DC application ref P2061/21/FUL for solar development was refused planning permission, Rfr2 being that 'The proposal would be contrary to policy CSP.1 of the Core Strategy and policies AP1, AP2 and AP4 of the Allocations Plan and the advice in the NPPF and NPPG in that it is considered that it has not been satisfactorily demonstrated that the proposal would not result in unacceptable impacts due to glint and glare on a wide variety of receptors. It is therefore considered that the proposal would not accord with policy CSP.1 of the Core Strategy, policies AP1, AP2 and AP4 of the Allocations Plan, and the advice in the NPPF, NPPG and the National Policy Statement for Renewable Energy (EN-3)'.	The Applicant notes this comment. Please see response to SGHS-011. The Applicant acknowledges comments raised regarding the planning application to the Forest of Dean District Council. The Applicant is confident in its assessment conclusions that the Scheme will not result in significant glint and glare effects. Please refer to ES Chapter 15 Glint and Glare [APP-052].

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-019	Glint and Glare	SGHS-036 (page 270)	It is asserted that the scheme has been designed to reduce impacts on heritage assets and that hedgerow screening and tree planning will further reduce impacts on the character of the Conservation Areas. As noted above, the matters relevant to cultural heritage have been addressed in ISH-2 (and summarised in the Summary of Oral Representations by SGHS to ISH-2). The key point is that the approach to site selection does not minimise impacts on designated and non-designated heritage assets. The measures to enhance screening of solar arrays will fundamentally alter the open character of the setting of heritage assets.	**ES Chapter 12: Cultural Heritage [APP-049],** supported by **ES Volume 3, Appendix 12.1: Heritage Statement [APP-110 to APP-120],** has assessed the potential impact of the Scheme on built heritage assets, and where required appropriate mitigation has been proposed (see Section 12.9 of **ES Chapter 12: Cultural Heritage [APP-049]** for embedded mitigation and Section 12.11 for additional mitigation). The Scheme has been refined, where practicable, to avoid or limit effects on the setting of heritage assets. This has included the careful placement of infrastructure to reduce potential indirect impacts, the removal of solar panels from fields identified as particularly sensitive, and the retention of visual corridors, historically associated routes, and established views connecting the Conservation Areas and the Grade I and Grade II* buildings. These iterative design measures were developed in response to the assessments reported in **ES Chapter 12 [APP-049]** and **Appendix 12.1 [APP-110**] and represent a proportionate and evidence-based approach to mitigation.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				As concluded in **ES Appendix 12.7 Historic Landscape Assessment [APP-147]** existing boundaries and hedgerows will be maintained, and all development will be reversible following decommissioning, with minimal residual landscape changes. The Applicant notes that the Scheme would not alter the ability to understand the historic landscape character and the legibility of the historic landscape and field pattern would be maintained.
SGHS-020	Agriculture and Soils	SGHS-037 (page 272) to SGHS-039 (page 276)	The site selection process does not enable the Applicant to demonstrate that land of lower agricultural quality could not be used. See in particular the submissions of SGHS to ISH-2 and the Summary of the Oral Submissions to ISH-2. In addition: future grazing, is addressed in REP1-193 SGHS/CT.3 Appendices to the Landscape and Related Matters Statement, Appendix CT-H. As per para. H1.14, it would be helpful if the Applicant could produce a note for the ExA listing examples and providing details of operational solar sites in the UK where currently, sheep / other animals are regularly grazed.	The Applicant's Response to SGHS-020, together with SGHS-076, 080 and 086, are provided separately at **Appendix A** below.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Also note that at para. 9.31 v), the Applicant's Farming Report [APP 571] refers to data from Defra's Land Use statistics for England for 2024. The figures appear to suggest that 50% of solar sites are grazed by sheep. However, SGHS has seen emails on the subject (and can make them available if required) in which Defra state that the estimates exclude large-scale solar farms Soil health and quality, is also addressed in REP1-193 SGHS/CT.3 Appendices to the Landscape and Related Matters Statement, Appendices CT-E, CT-F, and CT-G. Regarding the Applicant's claims about the proposals resulting in 'better land quality in long term' and 'beneficial effects on soil health and land quality', see Appendix CT-F paras. F1.21 - 28.	
SGHS-021	Human Health	SGHS-040 (page 277) to SGHS-042 (page 279)	The Applicant's comments are not an adequate or satisfactory response to matts raised by SGHS at Deadline 1 or at ISH-2	The Applicant respectfully disagrees, and relies on the comments provided at 'SGHS-040' to 'SGHS-042' of **Applicant Responses to Written Representations [REP2-048]**.
SGHS-022	Transport and Access	Traffic and Transport	See the responses in relation to GH8.1.15 Applicant Responses to Deadline 1 Submissions (REP2-050) below.	Please refer to the responses set out at 'SGHS-026' to 'SGHS-030' below.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
		SGHS-043 (page 280)		
SGHS-023	Transport and Access	Access to the Grendon BESS SGHS-045 (page 282)	See the response to SGHS-008 above	Please refer to the responses set out at 'SGHS-009' above.
SGHS-024	Major Accidents and Disasters	SGHS-046 (page 284) To SGHS-050 (page 292)	See the SGHS Summary of Oral Submissions to ISH-2.	Please refer to the responses set out in **Section 2.4** below.

Table 2.2: in relation to GH8.1.15 Applicant Responses to Deadline 1 Submissions [REP2-050]

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-025	Hydrology, Flood Risk and Drainage	SGHS-001 (page 49) to SGHS-013 (page 67)	See above	Please refer to the responses set out at 'SGHS-009' above.
SGHS-026	Transport and Access	Routes and Access points SGHS-014 (page 68)	Lack of Stage 1 Safety Audits. No account of topography and site lines Appears to be a desk top exercise	The consideration of access points has been undertaken following a number of site visits, both independent and accommodated by representatives of the highway authorities. The assessment is supported through the collection of site-specific traffic data with visibility splays assessed. The detailed design of access points will be agreed with the highway authority as part of later approval processes and Road Safety Audits provided where necessary. This approach is secured through the **Outline Construction Traffic Management Plan (Revision B) [REP3-064].**
SGHS-027	Transport and Access	Access points - A43 SGHS-016 (page 70)	The A43 is one of the Counties most dangerous roads, with 3 deaths in the last 12 months. Turns on to the A43 with limited visibility is the major problem. CC1 Compound now designated as large construction and parking compound which exits on to the A43 at CR4, this is the entrance to the Sywell Shooting Range.	The access provides visibility that is commensurate with vehicle speeds as presented in **Environmental Statement Appendix 13.2 Transport Assessment Part 2 of 3 (Revision A) [REP3-039].** Construction vehicle movements at this access are proposed to be restricted to left-in / left-out movements only and will avoid the busiest peak hours of the day.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Currently only car users attend the Shooting Range. HGVs created a significant danger due to their slow acceleration when pulling away. Turning right from the compound will be significantly more dangerous than turning left. Consequently this location is totally unsuitable.	
SGHS-028	Transport and Access	Access points Greenhill C SGHS-017 (page 70)	Access C1 is only a single lane, farm track of compacted hardcore. (Once used to install a small solar array for the local farmer). This access is opposite the entrance to Glebe - road and Beckworth Emporium, thus creating a Cross Roads. This road is a significant commuter route for North Wellingborough, Lt Harrowden, Burton Latimer, and Kettering, through to Northampton. Traffic management (traffic lights) will be imperative. Whilst in use, four -way lights will be required. Delays will be significant to commuters and the large numbers of shoppers to Beckworth Emporium. Commuters will avoid and come through Mears Ashby. Today, Friday 28th of November I counted 450 cars in the car park at lunchtime, given the churn of people throughout the day, I	Please refer to the responses set out at 'NF-004' in **Written Summary of the Oral Submissions at the Open Floor Hearing 1 and the Applicant's Responses [REP3-128].**

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			would estimate that 750 cars would visit on anyone day. There are no traffic counters on the approach roads. Hence traffic figures quoted on the Sywell road will be grossly underestimated. Putting 92 BESS containers into 'C' along with a 400 KV Sub station, with all the ground works and equipment, the junction will be chaos for weeks/months See reference to Cottam and West Burton Solar Farm. HGV movements based on this contract!	
SGHS-029	Transport and Access	Access points Greenhill C Highfield Road (5 no) SGHS-018 (page 71)	A single lane carriageway widened by use, over time. Now only 4.3m wide. Two lorries cannot pass, will have to use the verge. Car users will be intimidated by HGVs and end up in the verge. Access D1 is on the corner of Highfield Road and the Sywell Road, right outside Warner's Farmhouse. A fast road for commuters, access right on the junction, lorries turning into and out of the access slowly, as it is 1m lower than the road. 3way traffic lights the only option. Traffic delays to commuters and school users will be significant. Scheduled and timed deliveries do not work. Lorries turn up at the wrong times, usually	Please refer to the responses set out at 'NF-004' in **Written Summary of the Oral Submissions at the Open Floor Hearing 1 and the Applicant's Responses [REP3-128].**

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			early. There is no HGV parking near any of these sites, Lorry drivers will pull up onto verges, creating dangerous situations and delays to others and getting stuck in winter months.	
SGHS-030	Transport and Access	Comments on the OCTMP SGHS-019 (page 73)	Vagueness of drawings, conflicting data, assumptions regarding traffic. Applicant states that HGV movements are based on Cottam Solar Project and West Burton Solar Project. These may be of similar size in acreage, but the layout and configuration the panels, fields roads and accesses, will bear no resemblance this application and it reflects the poor planning and lack of commitment to this project.	The derivation of construction vehicle trips is based on a construction programme which is specific to Green Hill Solar Farm. With regards traffic effects, the key consideration is to ensure an assessment is made based upon peak daily vehicle movements. The greatest activity for HGV movements was considered to be during the delivery and implementation of solar modules and panels and this assessment is specific to Green Hill Solar Farm. Wider assumptions on landscaping and track construction are consistent with other Solar Farm schemes which have been approved through the DCO process such as Cottam and West Burton Solar Projects. Wider forecasts such as the number of construction workers are all specific to Green Hill Solar Farm but are consistent with assumptions made for other approved schemes.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-031	Human Health	SGHS-025 (page 79) to SGHS-031 (page 85)	SGHS rely on its representations at Deadline 1, particularly REP1-195	Please refer to 'SGHS-025' to 'SGHS-031' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**.
SGHS-032	Glint and Glare	SGHS-032 (page 85) and SGHS-033 (page 87)	SGHS rely on representations submitted at Deadline 1, and ISH-2.	Please refer to 'SGHS-032' to 'SGHS-033' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.4** below (ISH2).
SGHS-033	Landscape and Visual Impact Cultural Heritage Transport and Access	SGHS-034 (page 87) to SGHS-039 (page 97)	SGHS rely on the representations submitted at Deadline 1, ISH-2 and above in response to REP2 048. The Proposed development has not minimised harm to designated and non-designated heritage assets.	Please refer to 'SGHS-034' to 'SGHS-039' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.4** below (ISH 2) and at 'SGHS-010' to 'SGHS-016' above.
SGHS-034	Agriculture and Soils	SGHS-040 (page 99) to SGHS-043 (page 101)	In addition, SGHS rely on the representations submitted at Deadline 1, ISH-2 and above in response to REP2-048.	Please refer to 'SGHS-040' to 'SGHS-043' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.4** below (ISH 2) and at Appendix A below.
SGHS-035	Cultural Heritage	SGHS-044 (page 102)	SGHS rely on the representations submitted at Deadline 1 and ISH-2	Please refer to the responses set out in **Section 2.4** below.
SGHS-036	General Matters	SGHS-045 (page 104)	SGHS rely on the representations submitted at Deadline 1 and ISH-2	Please refer to the responses set out in **Section 2.4** below.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-037	Noise and Vibration	SGHS-046 (page 105)	SGHS rely on the representations submitted at Deadline 1	Please refer to 'SGHS-046' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**.
SGHS-038	General Matters	SGHS-047 (page 106)	SGHS rely on the representations submitted at Deadline 1	Please refer to 'SGHS-047' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**.
SGHS-039	Landscape and Visual Impact	SGHS-048 (page 108)	SGHS rely on the representations submitted at Deadline 1, ISH-2 and above in response to REP2 048.	Please refer to 'SGHS-048' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.4** below (ISH 2) and at 'SGHS-010' to 'SGHS-016' above.
SGHS-040	Ecology and Biodiversity	SGHS-049 (page 110)	SGHS rely on the representations submitted at Deadline 1 and the Ecology Response at Deadline 3.	Please refer to 'SGHS-049' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.2** below.
SGHS-041	Landscape and Visual Impact	SGHS-050 (page 110) to SGHS-056 (page 114)	SGHS rely on the representations submitted at Deadline 1, ISH-2 and above in response to REP2 048.	Please refer to 'SGHS-050' to 'SGHS-056' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.4** below (ISH 2) and at 'SGHS-010' to 'SGHS-016' above.
SGHS-042	Cultural Heritage	SGHS-057 (page 116) to SGHS-062 (page 118)	SGHS rely on the representations submitted at Deadline 1, ISH-2 and above in response to REP2 048.	Please refer to 'SGHS-057' to 'SGHS-062' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			The Proposed development has not minimised harm to designated and non-designated heritage assets.	Please refer to the responses set out in **Section 2.4** below (ISH 2) and at 'SGHS-010' and 'SGHS-019' above.
SGHS-043	Ecology and Biodiversity	SGHS-063 (page 118) and SGHS-064 (page 118)	SGHS rely on the representations submitted at Deadline 1 and the Ecology Response at Deadline 3.	Please refer to 'SGHS-063' to 'SGHS-064' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.2** below.
SGHS-044	Planning	SGHS-065 (page 119)	Noted.	The Applicant notes this comment.
SGHS-045	Planning	SGHS-066 (page 119)	The Applicant misses the point of the reference to Mead Realisations Limited v SSHCLG. The Applicant summarises the issue addressed in the Mead Court of Appeal Judgement. The reference in representations was expressly to the judgement in the High Court (REP1-215) which summarises how a sequential assessment should be undertaken. That part of the High Court Judgement was not an issue at the Court of Appeal.	The Applicant notes this comment. The Applicant maintains that the Sequential Test has been undertaken appropriately and proportionately, in line with NPS EN-1, NPPF and PPG. The Exception Test is supported by technical evidence demonstrating that flood risk can be safely managed. At the local level West Northamptonshire Joint Core Strategy Local Plan Part 1 policy BN7 (Flood Risk), Daventry Local Plan 2011-2029 Part 2 policy ENV11 (Local Flood Risk Management) and Milton Keynes Plan:MK 2016 to 2031 policy FR1 (Managing Flood Risk) all require a sequential test to be undertaken and the Host Authorities have not raised any issues with the document.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				The Applicant therefore considers that the requirements of national policy have been met.
SGHS-046	General Matters	SGHS-067 (page 120)	Noted.	The Applicant notes this comment.
SGHS-047	Major Accidents and Disasters	SGHS-068 (page 120)	SGHS Relies on representations at Deadline 1 and ISH-2 (including the Summary of Oral Representations).	Please refer to 'SGHS-068' in the **Applicant Responses to Deadline 1 Submissions [REP2-050]**. Please refer to the responses set out in **Section 2.4** below.

2.2 Responses on Ecology and Biodiversity

Table 2.3: Document reference: [REP3-098]

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-048	Ecology and Biodiversity	Applicant's responses to Deadline 1 Submissions GH8.1.15: Wintering birds – (Ref SGHS-054)	With particular reference to FLL (functionally linked land) related to the Special Protection Area for the RAMSAR site. Their response culminates in 'the mitigation package has been discussed with Natural England and will be agreed through the Statement of Common Ground to be submitted at Deadline 2'. On page 38, reference NE-001, in response to Examiners' Question 8.0.5, it is obvious that Natural England are still unhappy about the mitigation for FLL and are pursuing this with them. Stop Green Hill Solar acknowledge that Natural England are the experts on this issue and have no further comments to make about this, at this time.	Extensive discussion has been had with Natural England to agree a mitigation package. This package is now broadly agreed by Natural England, and the majority of items are now taken as 'Agreed' in the latest version of the Statement of Common Ground, to be submitted at Deadline 4. Final confirmation of the mitigation package's suitability is subject to review of our survey data by Natural England's ornithological expert. Remaining matters will be agreed through the final version of the Statement of Common Ground.
SGHS-049	Ecology and Biodiversity	GH8.1.15: Effects on flora – (Ref SGHS-055)	They have not answered the question in relation to soil compaction and lack of vegetation growing under the panels. Please see SGHS answer to Examiners' Questions 2, 2.7.7, point 3	Please refer to the Applicant's responses GrPC-003 and AGR-006 in **The Applicant's Responses to Written Representations at Deadline 1 [REP2-048]** for comments relating to soil compaction, and the Applicant's response to SGHS-005 in the same document for comments relating to vegetation beneath panels.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-050	Ecology and Biodiversity	GH8.1.15: Effects on bat populations – (Ref SGHS-056)	Again, they are evading answering the point about the rich bat populations and the research looking at the effects of solar arrays. **They attempt to cast doubt on the validity of the research, but they are unable to produce evidence to support a lack of effect. As the applicant, the onus on them is to provide this**. They state that: ' it is probable that any impacts on bats will be largely neutral; particularly when considering the likely higher value of the habitats present within the operational site (predominately comprising permanent grassland) over the baseline of largely arable land, together with the large development-free buffer zones which are comparatively wider than the field margins present at baseline)'. However, as in point 2, they cannot claim that permanent grassland will be established under the panels, as there is unlikely to be much growth, and bats cannot and don't forage in fields of solar panels, as clearly demonstrated by the research, for reasons that are not entirely clear, but listed in my document. They completely fail to address the particular issue of the rare Barbastelle bats, which are internationally protected, and are a species at high risk of extinction, found in significant numbers,	The potential effects of solar development on bats are currently poorly understood. As previously discussed, it is the position of the Applicant's ecologists that the study in question by *Tinsley et al* which points to a potential adverse effect of solar farms on bats has several limitations which must be considered. Please refer to the Applicant's response to SGHS-091 on this matter. It cannot be asserted with confidence that bats avoid solar farms on the basis of the limited research available on the topic, particularly in light of the limitations of some of the studies which have been highlighted. The ecological impact assessment set out within the **Environmental Statement Chapter 9 Ecology and Biodiversity [REP1-033]** considers the known ecology and conservation status of the bat species affected, the quality of the baseline habitats, the baseline levels of recorded bat activity, and the potential sources of impact. The conclusion of neutral to beneficial effects is based on sound ecological rationale, considering the embedded mitigation measures which retain key foraging and commuting habitat at the field boundaries, and extensive habitat enhancement measures to improve

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			particularly Sites F and G. It is required that the Precautionary principle is applied, where there is any reasonable doubt as to the absence of significant effects. Please also see SGHS answer to Examiners' Questions 2, 2.7.8	foraging, commuting and roosting capacity through the Sites. Barbastelle bats are classed as Vulnerable in Great Britain according to the GB Red List for mammals and are listed on Annexe 2 of the Conservation of Habitats and Species Regulations. They principally forage in woodland and pasture; arable habitats confer low value foraging habitat. No additional impacts relating to barbastelle bats specifically, are likely, and the conclusions within the **Environmental Statement Chapter 9 Ecology and Biodiversity [REP1-033]** are made with consideration of this species.
SGHS-051	Ecology and Biodiversity	Applicant's responses to Written Representations GH8.1.13: SGHS – 004 Incomplete survey data	The extract supposedly from my notes is a mix of some of my comments, reworded, and some from Katharine Banham's letters within my document. This is the issues of FLL associated with the Ramsar site/SPA which is best dealt with by Natural England.	The Applicant notes this comment. To address the issues in a coherent manner, similar issues posed by SGHS were combined before providing a response.
SGHS-052	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Evidence of pollution arising from Llanwern Solar Farm on Gwent Levels (p.230) : They do not specifically address the question of pollution. They state in general that:	Specifically in response to the parallel of Llanwern Solar, the Applicant highlighted that each Scheme must be considered on its own merits - it is possible that the agreed mitigation measures at Llawern Solar, or the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			'Each Scheme must be considered on its own merits, and the potential adverse impacts associated with Llanwern Solar are not necessarily comparable or applicable to the proposed Green Hill Solar Farm Scheme.' But the onus is on them to show that these impacts will definitely not happen. Please see also SGHS answer to Examiners' Questions 2, 2.7.7, point 1.	effectiveness of their implementation, will differ from those for the proposed Green Hill Solar Farm scheme. Consideration of pollution impacts in relation to ecology and biodiversity are fully addressed for this Scheme in the **Environmental Statement Chapter 9 Ecology and Biodiversity [REP1-033]**, with mitigation measures detailed in the **Outline Construction Environmental Management Plan (Revision A) [REP1-131]** and the **Outline Ecological Protection and Mitigation Strategy (Revision A) [REP1-137]**. These two documents will be secured through Requirements 13 and 8 of the **Draft Development Consent Order (Revision C) [REP3-024]** respectively.
SGHS-053	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Effects on flora (p231) : The answer they give is identical to that for SGHS – 055 in GH 8.1.15, see previous comments, p1., and SGHS answer to EX Q 2.7.7	The Applicant notes this comment. The issues were the same in both documents and as such an identical response was given.
SGHS-054	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Effects on bat populations (p232) : Identical answer to SGHS – 056 in GH 8.1.15, see previous comments p.2, and SGHS answer to EX 2.7.8	The Applicant notes this comment. The issues were the same in both documents and as such an identical response was given. Please refer to the Applicant's response to SGHS-091 in this document for further comments.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-055	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Effects on skylarks, other ground-nesting birds and Red-listed birds of conservation concern (p233): Skylark: REP2 – 071, p28-29, addresses skylarks and their territories, and in APP – 091 p.102 and following, there are maps of indicative skylark core territories at all the GHS Sites. According to my calculations, the total number of territories is 283, 178 (63%) will be definitely lost, 49 (17%) will be retained, and 56 (20%) will be 'absorbed'. They define 'absorbed' territories as follows: ' 'Absorbed' territory cores relate to territory cores which, although displaced, are nonetheless judged to be able to persist within the operational Site due to the presence of adjacent suitable nesting habitat and the improvement of the carrying-capacity of that adjacent habitat conferred by the presence of permanent grassland (and so a richer foraging resource) within the solar array.' However, this does not stand up to further interrogation as it is clear that this claim depends on a supposition that under the solar arrays, the grassland will provide a better food environment, but as I have argued elsewhere, e.g. answer to EX 2, 2.7.7, point 3, the type and size of solar panels planned is unlikely to	The latest version of the **Environmental Statement Appendix 9.8 Breeding Bird Surveys (Revision A) [REP1-051]**) confirms that there are 286 territories. Of these, 47 are retained in undeveloped fields, 27.5 territories are mitigated through increasing the carrying capacity of retained fields via management, 56 territories are absorbed by virtue of improved foraging resources conferred by the Scheme, and 155.5 territories are lost. This is set out in **paragraphs 9.9.248-9.9.251** of **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033]**. The rationale for the operational Scheme providing an elevated foraging capacity above baseline levels acknowledges that grassland beneath panels is typically less diverse than grassland between panels or outside of the array footprint; nonetheless, a very large extent of diverse grassland will be provided. It is reasonable to assume, based on extensive botanical and invertebrate monitoring of operational solar farms (as detailed in the Solar Habitat 2025 publication (Ref 1.1)), that this permanent grassland habitat will support a greater abundance and diversity of invertebrates, (including

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			support very much foraging resource underneath at all. Also, skylarks require long sight-lines around their nesting sites to avoid predators, and are similarly unlikely to forage underneath solar panels where they would be vulnerable. Skylark chicks require feeding purely with insects and spiders; these are unlikely to be in higher abundance in such fields. 'Absorbing' territories into adjacent fields for nesting is also very speculative, as there have been no surveys of these adjacent areas with regard to habitat and density of skylark territories already present. They claim to have secured mitigation for 45.6% of baseline (which I understand relies on a greater density of territories). However, I think my figures show that this is a highly speculative and optimistic scenario, certainly not a worst case. But even this is admitting a devastation of over half the Sites' skylark population, a species which is Red-listed and has declined in numbers significantly in the last 50 years.	insects and spiders required by skylark chicks), relative to the existing fields, which are largely intensive arable land subject to insecticide treatment and provide limited invertebrate food resources. With an understanding of skylark ecology in mind, it is reasonable therefore to assume that this comparatively enhanced grassland habitat will allow skylarks nesting on arable land adjacent to the solar site to persist at higher densities, thereby underpinning the precautionary assumptions of numbers of absorbed territories given in the ES (and following a methodology proposed in CIEEM In Practice article Blithe Spirit: Are Skylarks Being Overlooked in Impact Assessment? (Issue 117, September 2022)). Since this effect allows adjacent suitable nesting habitat to support a higher density of territories, it is not significant that the baseline surveys of adjacent land was not undertaken, but that an assessment of those fields' suitability in terms of management and spatial configuration was carried out. Furthermore, extensive monitoring conducted by the Applicant's Ecologist of active solar arrays has confirmed that skylarks are regularly recorded foraging among panels. These observations

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				corroborate the research-based understanding that long, unbroken sightlines are a principal element in nest site selection as opposed to foraging site selection (Donald, P.F. (2004). *The Skylark*. Poyser, London). In the context of the 45.6% mitigation provided, it is not clear to which figures the commenter is referring when making the assertion that "my figures show that this is a highly speculative and optimistic scenario". The mitigation calculations follow a methodology put forward within an industry journal article (as cited above) which takes into account the suitability of the mitigation land, its likely existing baseline territory density, and the ability for it to support further territories displaced from elsewhere when managed specifically for ground-nesting birds. This is the most appropriate and scientifically informed methodology available for assessing the effectiveness of mitigation for these species. The residual effect being significant and adverse at the District level is acknowledged in the ES Chapter **[REP1-033]** and this will be considered against other benefits of the Scheme.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-056	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Yellow Wagtail: (Red-listed bird of conservation concern) They are summer visitors and breed in some parts of the UK. They were found frequently on Sites E,F and G; with highest abundance at Site G. (See APP -091 p. 31). On their maps of indicative territory cores, figures 9.8.8, 9.8.9 and 9.8.10, they indicate that all 5 at Site G will be lost, along with 4 of 5 at Sites E and F. That means 90% will be lost. They offer no mitigation at all.	In **paragraphs 9.9.248-9.9.251** of **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033]**, a rationale is given for mitigation of a proportion of the skylark territories identified during baseline surveys. This includes allocation of mitigation fields as compensatory nesting habitat, to be managed sensitively for the lifetime of the Scheme. **Paragraph 9.9.248** states that skylark, yellow wagtail and lapwing *"…have overlapping nesting requirements, and so skylarks have been used as an umbrella species for the assessment."*. It is therefore considered that the mitigation measures put in place for skylark will also mitigate for the displacement of yellow wagtail. The improvement of the Sites' habitats though the creation of diverse grassland will likely also benefit yellow wagtail through a marked increase in invertebrate prey availability.
SGHS-057	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Yellowhammers: (Red-listed bird of conservation concern) They state the following (APP -091 p.36) 'Breeding was confirmed at Green Hill A, F and G with individuals noted carrying food, and a family of yellowhammer recorded at Lime Down F during Visit DUSK1. At the remaining Sites, it was considered	The assessment of impacts on yellowhammer has been made based on robust baseline survey data, and impacts to this species considered across the Scheme as a whole. Whilst some impacts to hedgerows are predicted, the vast majority of hedgerows across the Scheme will be

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			probable that the species were breeding within the Sites given the frequent sightings of pairs and abundant suitable nesting habitat.' In Site A, there will be significant damage to the relevant important hedgerows, as stated in my OFH submission, from long local knowledge and bird observation. I am not in a position to comment from personal knowledge about the effects on other sites. I have highlighted the observation about a 'Lime Down' site as it clearly demonstrates the Applicant's cut and paste approach to all this important ecological information. They also state that: 'The majority of other species are expected to benefit from the enhanced habitats conferred by the proposals, with neutral or beneficial significant effects predicted.' However, the mitigation proposed and enhanced habitats are not present at the beginning of construction, when disturbance is greatest. It will be several years before any mitigation or new habitats are established, by which time the populations of affected birds are likely to have been lost or displaced.	retained, a large proportion of these hedgerows enhanced, and a significant extent of new planting instated. Boundary habitats (such as hedgerows) will be protected during construction through the establishment of wide buffer zones, permitting continued foraging and nesting. Effects are deemed to be neutral and not significant for breeding yellowhammer during construction. In winter, when yellowhammer may forage among open fields, disturbance during construction may result in effective 'loss' of available habitat. However, the fact that construction will progress between different fields rather than occurring concurrently in every field, and the availability of alternative foraging areas (including mitigation fields which will be secured and available from the outset of construction), means predicted adverse effects are significant at the Site level only. This is set out in **paragraph 9.9.296** of **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033]**. Once constructed, the Scheme will provide significantly enhanced habitat for this species relative to baseline levels, and significant beneficial effects on both

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				breeding and wintering yellowhammer are predicted. The reference to Lime Down was made in error. The Applicant's Ecologist is working concurrently on both schemes, and made a genuine mistake when writing up the report. All information within the **Environmental Statement Appendix 9.8 Breeding Bird Surveys (Revision A) [REP1-051]** is specific to the Green Hill Solar Farm scheme, and a revised version of this document amending the typo will be submitted at Deadline 4.
SGHS-058	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Extensive linear habitats along cabling routes have not been surveyed (p234): They state they did have an Ecologist do a walkover survey of all accessible land within the cable route corridors, (although I believe that they may also have now accessed the other areas, but don't have the reference.) The more inaccessible land could have more wide-ranging habitats and ecology which they cannot provide detailed evidence on. The total land area of the cabling routes is very large and I have calculated this to be approximately 250 acres (considerably larger than Site A2 which is 160 acres, for example) - if this was not linear but a distinct site, they would have had to do	The habitats present within the Cable Route Corridor were found to be broadly representative of the habitats within the Sites and the wider local arable landscape, with approximately 69% of the total area of the Cable Route Corridor comprising arable cropland habitat types. As detailed in **Environmental Statement Appendix 9.2 Habitat Surveys (Revision A) [REP-045]**, approximately 3.7ha of the Cable Route Corridor was not accessible during the ecological walkover survey. In all cases, this was due to a lack of access permission being approved, rather than habitats being inaccessible due to

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			full ecological surveys of it. It is precisely because it crosses hedgerows, along side major roads, ditches, linear routes for animals, that the cabling route corridors could have very distinct and important ecology from the other mostly arable field sites.	ground conditions, for example. This area constitutes less than 2% of the total Cable Route Corridor. Where areas were not accessible, an assumption of the likely habitats present has been made, based on a review of satellite imagery, the analysis of open-source datasets such as the Priority Habitat Inventory, and the context of other habitats which have been surveyed in the local area. Where local contextual information has been limited, habitats have been assigned categories and conditions on a precautionary basis, taking into account the highest value habitat and condition which are considered likely to occur. This has resulted in these 'assumed habitats' being categorised as a mixture of arable cropland, modified grassland in good condition, and broadleaved woodland in good condition, as shown in **Table 2** of the above document. It is therefore considered, through applying the precautionary principle when assigning these habitat types and conditions, that the potential value of these inaccessible habitats has been captured and considered in the assessment. Detailed baseline surveys for other species were not conducted within the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				Cable Route Corridor given the nature of the habitats affected, the temporary nature of the works, and the full reinstatement of the habitats on completion of the laying of the cables. This approach was agreed with Natural England and is set out in **paragraphs 9.4.29-9.4.31** of the **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033]**. During construction, pre-commencement surveys will be completed to evaluate the presence of protected and notable species, with appropriate mitigation measures implemented. This is detailed in the **Outline Ecological Protection and Mitigation Strategy (Revision A) [REP1-139]**.
SGHS-059	Ecology and Biodiversity	GH8.1.13: SGHS – 005 Impacts on Ecology	Other Points (p234/235): They say that OEPMS Rev A (REP1-131) commits to the provision of bespoke buffers around bat roosts and nesting Schedule 1 birds e.g Red Kite, but in the Ecological Surveys conducted they did not ascertain the whereabouts of any bat roosts or Red Kite nests. The bat surveys were with static detectors, and they assessed trees on the sites for potential for bat roosts, but they did not seek to find them. Given that the bats would not be active during the daytime, how do they propose to	The **Outline Ecological Protection and Mitigation Strategy (OEPMS) (Revision A) [REP1-140]** provides measures to be implemented during construction. **Sections 6.3 and 6.4** of the OEPMS **[REP1-140]** set out measures pertaining to roosting bats and nesting birds. This includes sensitive timing of works to avoid impacts in the first instance, and pre-works inspections by a competent Ecological Clerk of Works (EcoCoW) to evaluate the presence of these species

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			identify the roosts during construction work, in order to provide a buffer? As discussed in my Open Floor Hearing submission (which I am submitting by email as well), I show that having demonstrated a concentration of high suitability trees for bat roosts around field AF24 on Site A, that they have then chosen to place a 132 kV substation immediately adjacent, despite other options for placement clearly being available. Other Red listed birds include the yellowhammer, grey partridge and dunnock. Yellowhammer are known to nest every year in the hedgerows in eg Site A – particularly along Newland Road adjacent to field AF29, where the crossing point A-1 is planned. It will not be possible to provide a sufficient buffer for these birds given the heavy vehicle movements required to bring all equipment and plant to the west side of Site A. Potential for noise and vibration to impact ecological receptors: They refer to REP1-033 which states: 'Disturbance: Pressures or changes in the environment acting on individuals of a species so as to alter their behaviour may arise through noise, movement and vibration during construction operations, as well as increased human presence.' So they acknowledge the potential for noise and	if works cannot be timed to avoid the nesting season entirely. Following these inspections, the EcoCoW will advise the construction team on the best course of action to avoid impacts on birds and their nests, if present, which may include micro-siting works outside of protective buffer zones, or otherwise delaying works until nesting activity has been completed. Trees suitable to support roosting bats were identified during baseline survey work and are shown on **Figure series 9.6.8-9.6.19** within **Environmental Statement Appendix 9.6 Bat Surveys (Revision A) [REP1-047]**. Such trees will be avoided during construction, or appraised to confirm the absence of roosting bats before impacts occur. Any additional trees which are found to have become suitable for roosting bats since the baseline surveys were completed will likewise be inspected prior to commencement by the EcoCoW. Bats forage at night, however during the day they roost in trees, caves or other structures such as buildings. As such, survey of these roosts is possible, and indeed should be conducted, during the daytime. If a roost is identified and impacts cannot be entirely avoided, then a mitigation licence will be sought from

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			vibration to cause an impact but I could find no evidence of any attempt to quantify it or reduce it. Heat island effect: They refer to REP1-161 (760 pages in total) which are responses to Relevant Representations, but I could not find any comment about this.	Natural England to permit works which would otherwise be unlawful. The licensing process would secure the approach to be taken to the work to ensure that any impacts are mitigated or fully compensated for. No red kite nests were identified during baseline surveys, but new nests may be built between the time of the baseline surveys and the outset of construction. A competent Ecological Clerk of Works will check the working area to confirm the presence or absence of these features before works proceed if within the nesting bird season. In the event of potential impacts, avoidance or mitigation measures will be implemented. For Schedule 1 birds such as red kite, it is an offence to disturb them when nesting, and the potential for disturbance will be considered within the mitigation recommendations made by the Ecological Clerk of Works. Any active bird nests (of any species) will be protected until completion of nesting. The potential for disturbance on ecological features is considered throughout **Section 9.9** of the **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033].**

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				The Applicant's response to **CLI-003** in **Applicant Responses to Relevant Representations [REP1-161]** discusses the heat island effect.
SGHS-060	Ecology and Biodiversity	GH8.1.13: SGHS – 006 and SGHS -007 (p236 – 237):	These are points about the RAMSAR site, SPA and FLL. Natural England have taken up these issues and are the experts.	The Applicant notes this comment.

2.3 Responses on Flood Risk and Policy Compliance

Table 2.4: Document reference: [REP3-099]

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-061	General Matters	Introduction	This Note provides a response to GH8.1.13 Applicant Responses to Written Representations; and GH8.1.15 Applicant Responses to Deadline 1 Submissions, with regard to flood risk, policy compliance and site selection. It also responds to the oral submissions by Ms Broderick for the Applicant at ISH-2 with regard to flood risk and the sequential test. SGHS have made separate representations about the site selection process in the context of BMV land, a proper application of government policy, heritage and landscape impact. In summary: a. the site selection process did not involve the carrying out of surveys of agricultural land, in particular to ascertain which land was Grade 3a rather than 3b do did not consider the use of Grade 3b land; b. even in respect of the chosen sites, no explanation has been given as to why Grade 2 and Grade 3a land has been chosen for the siting of solar panels; c. the search area has also extended far beyond an area that can reasonably be described as near to the point of connection; and the ultimate selection of sites has reflected large landholdings with	The Applicant has followed a step-by-step site selection process which confirms the location of the Scheme is suitable for a large-scale solar farm. This has included the avoidance of sensitive landscape and environmental designations in confirming site suitability and consideration of alternative sites. Details of the process are set out in **ES Appendix 5.1: Site Selection Assessment Revision A [REP1-037]** Please also refer to **ES Chapter 5: Alternatives and Design Evolution [APP042]**. The site selection process widened the search to consider Best and Most Versatile (BMV) Agricultural Land within a 20km search area **ES Appendix 5.1 Site Selection Assessment Revision A [REP1-037]** in compliance with National Policy Statement for Energy (EN 1) and National Policy Statement for renewable energy infrastructure (EN-3), which is the furthest distance that the Applicant sought to locate the Scheme from the Point of Connection on commercial feasibility and the efficiency of the transmission of electricity to the grid, to avoid the use of BMV land as much as possible.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			willing sellers (commercial convenience/benefit rather than planning); d. the consequence is that the Applicant is unable to demonstrate that it is not possible to avoid the use of BMV land and/or that the use of such BMV land has been minimised; that harm to designated heritage assets has been avoided or reduced to the lowest practicable level; and that landscape harms have been minimised. These representations are on a similar vein but specifically relate to the additional matter of flood risk and the Sequential Test.	NPS EN-3 does not prohibit the use of BMV land and recognises that NSIP scale solar schemes are likely to include some agricultural land, with the preference being to prioritise poorer quality land. To deliver the proposed capacity for the Scheme, it was therefore considered likely that a significant percentage of BMV land would be required. EN-3 states at paragraph 2.10.29 that applicants should avoid the use of BMV 'where possible', and this is what the Applicant sought to do in its site selection process. At the site-selection stage, it is standard practice to rely on Natural England's published Agricultural Land Classification (ALC) maps. These maps do not differentiate between Grades 3a and 3b, and therefore it is not possible to identify Grade 3b land through desk-based mapping alone. However, commissioning detailed soil surveys across all potential land parcels within the search area would be disproportionate and time consuming. The Applicant acknowledges that the Scheme involves the use of BMV land. However, the **Farming Report [APP-571]** sets out that within the wider area the land is almost all in either the 20-60% BMV or >60% BMV category. It is notable that much of Northamptonshire, particularly to

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				the north and southwest of Grendon, consists predominantly of higher grade land, with a mixture of Grade 2 and Grade 3 often with both Grade 2 and Grade 3 land in individual fields. This significantly limits the ability to deliver a scheme of this scale without utilising higher-grade land. Comparable sites of a similar size elsewhere in the county would inevitably contain similar proportions of BMV land. Given the high prevalence of BMV land within the 20 km search area around Grendon Substation, it was not considered feasible to avoid BMV land while still meeting the Scheme's scale and operational requirements. Please also see the responses outlined in Appendix A of this document in regard to the site selection process and consideration of BMV.
SGHS-062	Planning Policy	Applicant's Flood Risk Sequential Assessment	The issue of Hydrology, Flood Risk and Drainage is addressed in Section 6.7 of the Planning Statement *[APP/GH7.15 (APP-599). Note that whilst the Planning Statement has been revised, there are no material changes to the parts dealing with the Sequential and Impact Tests (the only amendments are to update document references).]*. Paragraph 6.7.22 it is acknowledged that as the Scheme is major development and parts of it are within Flood Zones 2 and 3, a Sequential Test is	The Applicant notes this comment.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			required by EN-1 and the PPG *[This is also acknowledged at paragraph 1.1.9 of Appendix B to the Planning Statement.]*. The sequential assessment is set out in Appendix B *[Note that paragraph 6.7.22 of the Planning Statement incorrectly refers to the Sequential and Exception Test being Appendix C]* of the Planning Statement. Paragraph 6.7.22 states that the Sequential Test shows there are no reasonably available, lower-risk sites, suitable for the Scheme. It also states that as the Scheme is essential infrastructure within Flood Zone 3, an Exception Test is also required. It is asserted by reference to Appendix C that the Scheme fulfils both elements of the Exception Test. The Applicant's sequential assessment is set out in Section 3 of Appendix B. Reference is made to the 20 kilometre radius area of search *[It notes that the justification for the area of search is set out in ES Chapter 5 Alternatives and Design Evolution (APP-042), supported by ES Appendix 5.1 Site Selection Assessment (APP-077).]*. Paragraph 3.1.2 sets out the criteria potential sites were required to meet in order to be "reasonably available". These include "land holdings being 'reasonably available' for such development subject to land agreements". Section 3.2 of the assessment summarises the staged approach to site selection as described	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			in ES Chapter 5 and Appendix 5.1. Flood risk was considered at Stage 4 where the identified PDAs were evaluated *[Appendix B, paragraph 3.2.6]*. The site selection assessment considered other planning constraints in addition to flood risk. The conclusion of the assessment is that the proposed Sites for the Scheme were the most suitable locations within the area of search and there were no reasonably available sites in areas of lower flood risk *[Ibid, paragraph 3.2.12]*. The conclusions are that the assessment which has been undertaken represents a sound and transparent approach to assess "reasonably available sites" within the defined area of search *[Ibid, paragraph 3.3.2]* and that there are no reasonably available sites available which can be developed to facilitate a 2029 grid connection *[Ibid, paragraph 3.3.3]*.	
SGHS-063	Planning Policy	Commentary	EN-1 points to the NPPF and PPG in respect of flood risk *[This is stated at Appendix B, paragraph 2.1.2]*. The SGHS Written Representations *[REP1-230]*, Section 4 considers flood risk and drainage. Paragraph 4.11 states that the Sequential Test relies on the assessment of alternative sites and site selection. The response of the Applicant *[The Applicant's Responses to Written Representations at Deadline 1, (EX2/GH8.1.13) (REP2-048)]* is, in summary, that that it considers the Sequential	Please refer to the Applicant's response to matter 'SGHS-001' above on site selection. A site being within flood zone 2 or 3 is not necessarily incompatible for solar development therefore this constraint does not need to be considered in the earliest stages of site selection. As set out in **ES Chapter 10 Hydrology, Flood Risk and Drainage [REP1-023]** critical infrastructure (conversion units,

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Test and Exception Test set out in the Planning Statement Revision A *[REP2-43 (clean version), REP2-44 (tracked version). However, there are no material changes to the parts of this Statement that deal with the Sequential Test and the Exception Test.]* address the necessary policy requirements. PPG paragraph 027a Reference ID: 7-027-20220825 addresses the question of defining an area of search for the purposes of the Sequential Test. It refers to a need for realism and pragmatism and that "For infrastructure proposals of regional or national importance the area of search may reasonably extend beyond the local planning authority boundary. It may also, in some cases, be relevant to consider whether large scale development could be split across a number of alternative sites at lower risk of flooding, but only where those alternative sites would be capable of accommodating the development in a way which would still serve its intended market(s) as effectively." In this case whilst the area of search comprises a 20 kilometre radius, as has been explained in the context of the issue of BMV land, analysis has is effectively confined to the land identified with willing landowners and which have large areas of land. Paragraph 027a also refers to the disaggregation of proposals into smaller sites	substations and energy storage compounds) are not placed in areas at medium or high risk of surface water flooding, and do not obstruct flows so those elements of the Scheme have been sequentially located within the Scheme. Until the land has been compiled, the process of deciding where the critical infrastructure is located doesn't take place and at that point the areas at medium and high risk of flooding are avoided for that infrastructure. The inclusion of compulsory acquisition powers within the DCO must be justified in the public interest as it involves an interference with the human right to property of the affected landowners. The **Statement of Reasons [REP3-028]** sets out how compulsory acquisition powers are justified in the case of the Scheme. By identifying landowners that are willing to lease their land for the main components of the Scheme (the solar PV arrays), the Applicant is able to minimise the extent to which compulsory acquisition powers need to be exercised. The Ministry of Housing, Communities and Local Government Guidance on the compulsory purchase process (January 2025) confirms that compulsory acquisition powers should be used where it is expedient to do so and where there is a compelling case in the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			to see if a large scale development could be split across a number of sites at lower risk of flooding. In this case the site search criteria is based on the landholdings of willing landowners and a minimum plot size of 40 hectares *[ES Appendix 5.1 Site Selection Assessment (APP-077). See Paragraphs 2.2.8 and 2.2.9.]*. This is said to be based on viability. However, as has been noted elsewhere in the submissions of SGHS, no evidence of viability nor feasibility is before the Examination. As noted above, the Sequential Test was addressed at Stage 4 of the site selection process. It is apparent that the Sequential Test has only sought to investigate the suitability and availability of identified land with willing landowners and with plots of a minimum size of 40 hectares because all other land had been filtered out of the site search before Stage 4 *[Ibid, paragraph 2.2.9]*. PPG paragraph: 028 Reference ID: 7-028-20220825 considers what is a reasonably available site. It identifies three criteria: • That the location is suitable for the type of development proposed, • That they are able to meet the same development needs and • That they have a reasonable prospect of	public interest. The Guidance also requires that the acquiring authority attempt to acquire all of the land and rights required by agreement. Accordingly, the presence of landowners who are willing to lease large areas of land to the Applicant is a fundamental factor in identifying the land for the Scheme sites that can be considered to be reasonably available.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			being developed at the same time as the proposal. Paragraph 028 also states a sequential assessment can include a 'series of smaller sites' if capable of accommodating the proposed development. Apart of an assertion about the need for a minimum plot size of 40 hectares otherwise the development would be unviable, for which no evidence is provide in support, no sites or areas less than 40 hectares have been considered and no land outside of the identified ownerships. Regarding ownership, paragraph 028 also states that alternative sites do not need to be owned by the applicant to be considered 'reasonably available'. In this case, the availability of compulsory purchase powers places a different complexion on the issue of availability compared to normal circumstances with a planning application. The availability of these powers means that land which might otherwise not be available can be legitimately considered. Of course, the Applicant has only considered land which has been identified by agents with a willing landowner. That is not sufficient.	
SGHS-064	Planning Policy	Summary and Conclusion	The assessment which has been undertaken for a sequential assessment is unrecognisable as a Sequential Test. Whilst notionally an area of search comprising a 20 mile radius has been defined for the site search (generally),	Please refer to the responses above 'SGHS-001 and SGHS-064'.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			but only land identified as having a willing landowner and plots in excess of 40 hectares have been considered as part of the assessment. Land ownership has been a determining factor. With the availability of compulsory purchase powers, which cannot be justified from a policy perspective. The Applicant cannot demonstrate there are no areas available of lower flood risk compared to the sites selected: • The area of search is contrived because only land in particular ownerships have been considered and with a minimum plot size of 40 hectares; • The availability of other land within the 29 kilometre radius defined for the site search is not a constraint because compulsory purchase powers are available; and • No evidence is provided to justify a minimum site size of 40 hectares. The onus falls on the Applicant to demonstrate compliance with the Sequential Test *[PPG paragraph: 029 Reference ID: 7-029-20220825]*. The assessment undertaken by the Applicant is driven by the identification of willing landowners with plots of land in excess of 40 hectares. It patently fails to address policy for directing development to areas with lower flood risk.	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Yet again, the site search undertaken is flawed.	

2.4 Summary of Oral Submissions at Issue Specific Hearing 2

Table 2.5: Document reference: [REP3-101] and [REP3-100]

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-065	General	Introduction	This is a summary of the oral submissions by Stop Green Hill Solar ("SGHS") to ISH 2 presented by Professor Peter Dobson on BESS Safety; Carley Tinkler on matters relating to landscape impact; and Richard Humphreys KC on matters relating to BESS, BMV land; heritage and viability.	The Applicant notes this comment and refers to **[REP3-075]** for the Written Summary of the Applicants Oral Submissions at Issue Specific Hearing 2 and Responses to Action Points.
SGHS-066	BESS	BESS Safety	Professor Peter Dobson: The problem is that the UK has no safety standards or regulations in place for BESS. There is no legislation and nobody is responsible for safety in the installation and operation and particularly what happens in the event of a disaster. There is a potential of fire/explosion of Lithium Ion Batteries. This has happened elsewhere (e.g. Liverpool). At present no standards exist. There are no UK BESS Safety Standards. NFCC Guidance Rev 2024 is non-mandatory. There is a wide range of container types, all produced abroad (so it is very important to have standards in place). There is an	Section 2.5 of the **Outline Battery Storage Safety Management Plan Revision A** (OBSSMP) **[REP1-143]** lists the guidance documents and testing and safety standards considered by the Applicant have been used to inform the design of the scheme, which are BESS safety specific and include global or relevant UK guidance or standards. Sections 4.1.16 - 4.1.23 of the OBSSMP details how the illustrative layout of the BESS area is fully compliant with NFCC guidance and NFPA 855 (2026) safety requirements. Large Scale Fire Testing (LSFT) of the selected BESS design to establish minimum equipment spacing distances and site-specific consequence modelling will provide a clear, evidence-based case for the final BESS area

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			imperative to be very careful before we assume that it is satisfactory to leave safety to a future battery storage management plan *[As assumed in Sunnica decision]*. The full details of layout, spacing, access by Fire Services and details about the flammable liquids in the containers should be specified now.	installation plans at the detailed design phase and will be agreed with Northamptonshire Fire and Rescue Service (NFRS). An independent Fire Protection Engineer specialising in BESS will validate all UL 9540A, LSFT, and / or third-party test and site-specific consequence modelling data which has been provided. This is secured through Schedule 2, requirement 6 of the **Draft DCO [Rep3-025]**. The Applicant emphasises that the OBSSMP contains clear and precise information regarding the key BESS safety standards, safety codes, quality standards, and testing that will be required for the selected BESS design. **Section 4 – Safe BESS design**, provides comprehensive information including: **4.1.1** The BESS will be designed to address prevailing industry standards and good practice at a time of design and implementation. BESS system and components used to construct the facility will be certified to UL 9540 (2023) and/or BS EN IEC 62933-5-2 (2020) standards (or any future standards which supersede this).

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				4.1.2 As a minimum, the battery system will have completed unit or installation level UL 9540A (5th Edition) testing, the BESS enclosure will have completed large scale fire testing (LSFT) to demonstrate that loss will be safely limited to one BESS enclosure without the intervention of Fire Fighters. UL 9540A heat flux test data can establish safe distances between BESS enclosures and ESS equipment but will not be conclusive if full propagation of the battery system does not occur in the test. **4.1.3** NFPA 855 (2026) currently provides the most comprehensive guidelines for BESS design and site installation specifications. BESS design structural integrity will be demonstrated through full-scale destruction performance testing and / or by integrating rigorously tested NFPA 69 (explosion prevention) and NFPA 68 (Explosion protection through deflagration venting) features. NFPA 855 (2026 revision) mandates that Large Scale Fire Testing (LSFT) which is full scale burn testing of the BESS system to validate safe equipment spacing, must be conducted and the BESS selected at detailed design must as a minimum have completed this testing under the UL 9540A test program or an accredited 3rd Party LSFT test program i.e. CSA, DNV, TUV SUD, etc.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-067	BESS	BESS Layout	The indicative layouts of the BESS are very vague. There would be in excess of 500 containers that will be arranged in groups of four. The spacing between the containers is not specified. From the drawings *[APP-205 and APP-206]* the spacing between each container within a group of four will be about one metre. The spacing between the clusters might be between 5 to 10 metres but there are difficulties measuring off such small scale plans. There is a lack of detail and clarity. Risk arises because each container will contain roughly 4 megawatt hours ("MWH") of electrical energy. This is a lot. To put it into context this is the equivalent of 3 tonnes of TNT. However, it is worse because the battery containers contain flammable liquid. The electrolyte used in these batteries is an organic fluid which carries fluorinated compounds, and that is the way they work. nobody seems to be concerned about the danger of that huge amount of flammable material contained on a site.	Sections 4.1.16 - 4.1.23 of the **Outline Battery Storage Safety Management Plan Revision A** (OBSSMP) **[REP1-143]** details how the illustrative layout of the BESS area is fully compliant with NFCC guidance and NFPA 855 (2026) safety requirements. Large Scale Fire Testing (LSFT) of the selected BESS design to establish minimum equipment spacing distances and site-specific consequence modelling will provide a clear, evidence-based case for the final BESS area installation plans at the detailed design phase and will be agreed with NFRS. An independent Fire Protection Engineer specialising in BESS will validate all UL 9540A, LSFT, and / or third-party test and site-specific consequence modelling data which has been provided. Section 2.4.2 of the OBSSMP specifies that: Final BESS design and site layout will have been validated through mandatory Large Scale Fire Testing (LSFT) and rigorous consequence modelling to minimise the requirement for any NFRS intervention in a thermal runaway incident. LSFT must establish minimum equipment spacing distances that demonstrate there is no fire propagation to adjacent BESS enclosures or Energy Storage System

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				(ESS) equipment. NFRS intervention in worst case scenarios would typically be limited to boundary cooling of adjacent BESS and ESS units to prevent the fire from spreading. This strategy will be finalised with Northamptonshire Fire and Rescue Service (NFRS) and be clearly communicated in the Emergency Response Plan (ERP): • To ensure that fire, smoke, and any release of toxic gases does not significantly impact site operatives, first responders, and the local community; and • To ensure that firewater run-off is contained and tested before release or, if necessary, removed by tanker and treated offsite. At the detailed design stage a Failure Modes and Effects Analysis (FMEA) of the BESS (BS EN IEC 60812) or Layer of Protection Analysis (LOPA) of the BESS will be conducted to lay the foundation for predictive maintenance requirements and complement the fault indicator capabilities of the BMS data analytics system. This key analysis minimises the probability of a BESS failure in relation to the specific BESS system and site design and analyses key mitigation solutions to minimise the impact of a BESS failure in the unlikely event that this would occur.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				These types of risk analysis provide confidence to demonstrate that under day-today operation there is a low risk of a BESS failure incident, and in the event of an incident the credible hazards are understood and have been evaluated both at the illustrative and detailed design stages to demonstrate that the risk to site operatives, first responders, and the local population remains very low.
SGHS-068	BESS Hydrology, Flood Risk and Drainage	Firefighting	Regarding the bunding of the BESS site is sufficient to take firewater. My question would be, what assumption has been made about the time and the volume of fire water being applied by the firefighters? Is there sufficient capacity? Two hours is recommended by the NFCCC. In reality, 24 hours is much more common, because a lot of that water is being used to cool the other containers to stop them going critical and blowing up.	The Applicant stresses that there is absolutely no validity to the claim that 24 hours firefighting water supply would be required for any credible BESS failure incident. The Applicant's OBSSMP stipulates that at the detailed design stage BESS site and BESS design principles and ERP content will ensure that NFRS are expected to employ a defensive strategy i.e. only boundary cooling should be employed for cooling of adjacent BESS or associated supporting equipment, this ensures that environmental pollution risks are minimised. BESS enclosures are made of non-combustible materials and incorporate high levels of thermal insulation, to minimise fire propagation risks. Section 5.3.2 of the OBSSMP stipulates: "A BESS design which may require direct

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				NFRS firefighting engagement tactics will not be selected for this facility". • Boundary cooling typically involves firefighters directing water fog or spray pattern discharge to ensure the incident does not spread to adjacent BESS enclosures. NFCC guidance states: "If it can be confirmed that the recommended firefighting tactic for the BESS is to defensively fire fight and boundary cool whilst allowing the BESS to consume itself, this will reduce the water requirements, and thus the drainage/environmental protection requirements significantly." • Section 5.3.2 of the OBSSMP specifies that the example design used to inform the ES includes a minimum of two water tanks, each with no less than 230,000 litres (l) of water. This would provide 1,900 litres per minute for approximately 4 hours of water which is approximately double the 2-hour minimum duration stated in current NFCC guidance and has been agreed with NFRS. Furthermore, as Section 5.3.2 of the OBSSMP outlines: "The BESS scheme will integrate an external firefighting water capture drainage system. In the event of a fire a system of automatically self-actuating valves at the outfalls from the BESS areas will be closed, isolating the BESS areas drainage from the wider environment. Fire

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				water runoff may contain particles from a fire; the runoff must be contained and tested before being allowed to discharge to the local watercourses. The water contained by the valves will be tested and released or, if necessary, removed by tanker and treated offsite (in consultation with the relevant consultees at the time). Pollution analysis will always be conducted before removing from site (if polluted) or releasing into drainage systems, if safe to do so." The firefighting water requirement will be fully assessed at the detailed design stage based upon based upon analysis of Large Scale Fire Testing (LSFT) of the BESS design plus any additional fire and explosion test data provided by an independent Fire Protection Engineer, water storage volumes will be fully agreed with NFRS.
SGHS-069	General Matters Energy Need	Overplanting	Depending on the wattage of the panels, people have been worried about over planting of the solar panels, and this was more my specialty years ago. Solar panels have increased in area. They have not increased in efficiency very much. So what we're finding is that developers are increasing the number of panels of larger area on sites. This increases	The Applicant notes this comment. The principle of overplanting is explained in Section 7.6 of the **Statement of Need [APP-556]** and the Applicant confirms that it is proposing to deliver an appropriately overplanted scheme. NPS EN-3 recognises that overplanting "allows developers to take account of degradation in panel array efficiency over time, thereby enabling the grid connection

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			the potential power output of the overall site. This affects the specification of the connections to the batteries and to the grid, and it is a point which really has to be made very clear at the outset as to what you're planning.	to be maximised across the lifetime of the site" (paragraph 2.10.47). The Applicant is bringing forward a scheme which seeks to deliver a large annual quantity of electricity from the available land and grid connection while retaining flexibility to ensure that the scheme can be fully optimised at the point of design including to take advantage of any technological advances achieved post consent (if granted).
SGHS-070	BESS Air Quality Human Health	BESS Fire	Reference is made by the applicant to fire/plume tests conducted by Wartsila in Ohio in 2023. However, this is not peer reviewed. And it assumed that the fire was contained to one container. Here, the plans show containers very close together so there is a concern that a fire in one (temperatures could reach over 900 degrees C) could spread to other containers. This is where the lack of UK standards really shows up because we don't have any condition for the developer to supply a particular type of BESS container with all these thermal barriers built in between the modules, and between the module and the container itself. So, there's real inadequacies here. It's been left to the supplier of the BESS units.	The Wartsila LSFT referenced in the Plume Study and by the Applicant at the ISH 2 hearings was conducted at an accredited third-party test facility with test reporting by Fire & Risk Alliance LLC, who are a renowned BESS fire and explosion testing group. The Applicant strongly emphasises this is not unaccredited internal testing, but third party validated test data conducted to the most rigorous testing protocols and data capture requirements. The Applicant's Plume Study **BESS Fire Emissions Modelling Report [APP-167]** models all emissions and impacts from a BESS fire that are specified through NFCC guidance and from the Applicant's previous DCO consultations with the UK Health and Security Agency (UKHSA). The modelling

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Regarding emissions from BESS, modelling here has been done for a one kilometre area. This is inadequate. There are much better modelling packages available. For example The Met Office, in particular, is very good at this kind of thing. Irrespective, the PM10 issue is relevant. PM10s are particles of 10 microns diameter. Most of these BESS fires, contain particles all the way down to fractions of a micrometre. So, and they are the ones that are dangerous. The ones that are really dangerous to human health are the ones in the sub-one micron size range. And if you look at the report which has just been published of the big disaster at Moss Landing in California, you will find that there was heavy metal oxides spread for six or seven kilometres from the heart of the fire. These ultrafine particles which cause the problems of health. A small particle of less than 100 nanometres, that's a tenth of a micrometre, can be absorbed directly into the brain. This issue of these very small particles do not appear to have been addressed in any of the safety considerations for the event of a BESS failure.	considers a worst-case scenario which is a short-term emission release in worst case weather conditions recorded over a five-year period. The Applicant's Plume study has already demonstrated that there will be no significant off-site BESS fire impacts on sensitive receptors. The rapid dispersion of toxic gases in outdoor BESS fires limits the potential for off-site toxic exposure. Air sampling from previous BESS fire incidents has found that off-site contaminant concentrations did not pose a public health risk. Recent Large Scale Fire Test (LSFT) BESS research and real-world incident experience indicates that emissions in the smoke from a BESS fire in an outdoor setting are comparable to those of a residential / commercial structure fire. Because a BESS fire would involve a modular non-combustible enclosure tested to prevent propagation, any emissions or other substances generated by a fire will be less than those produced by a fire involving most commercial or industrial building structures. The Plume study of the selected BESS system commissioned at the detailed design stage will be conducted at approved third-party or government

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				approved test laboratories. These facilities utilise large scale smoke hoods (cone calorimeters) capable to capture every type of battery gas & particle emitted during the thermal runaway process at module, battery rack or complete BESS enclosure level. This equipment can measure total volume gas production (gas chromatography) and FTIR (Fourier Transform Infrared Spectroscopy) testing (PPM) for organic compounds (toxic gases) such as: Carbon Monoxide (CO), Carbon Dioxide (CO2), Hydrogen (H2), Sulphur Dioxide (SO2), Nitrogen Oxides (NOx), Hydrogen Fluoride (HF), Hydrogen Cyanide (HCN), Hydrogen Chloride (HCl), Hydrocarbon gases (THC content), PAHs, etc. The equipment also integrates comprehensive particle capture by XRF (X-ray fluorescence) analysis checks for: Phosphorus, Aluminium, Nickel, Silicon, Calcium, etc. This means that heavy metal particulate emissions can be quantified and included in emission modelling if the selected battery system emits significant levels during fire testing. Section 5.5.9 of the OBSSMP stipulates: "*..at the detailed design stage a BESS system and site-specific Plume Analysis*

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				study will be conducted to assess the environmental impact of a site incident to sensitive receptors within a 1 km radius. Toxic gas emissions to sensitive receptors must be below relevant public health exposure limit guidelines when the battery system of a BESS is fully consumed (burnt out), production of Particulate Matter (PM) and a visibility impact assessment on any transport links within a 1 km radius of the BESS area will also be included. *The emergency response plan (ERP) produced at the detailed design stage (template outlined in section 5.4.4) will incorporate all necessary emergency response procedures and actions based upon thermal runaway test data supplied by the BESS system provider."* This is secured through the DCO. Maximum predicted ground-level concentrations occur in the immediate vicinity of the BESS area, well within 1 km. As the assessment was focused on the maximum potential impact to receptors, a 1km study area for BESS fire emissions was considered appropriate. ADMS (Atmospheric Dispersion Modelling System) is an advanced Gaussian plume air quality model and is accepted by UK regulatory agencies (such as the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				Environment Agency and local authorities) and was therefore considered an appropriate model to use in the assessment.
SGHS-071	General Matters Consultation	Statutory consultees	Richard Humphreys KC: [The Health and Safety Executive together with the Environment Agency, are the joint competent authority under both the Planning (Hazardous Substances) Regulations of 2015 and also the COMAH (the Control of Major Accident Hazards Regulations of 2015. There has been no reference to the involvement or, or consultation with, the Health and Safety Executive specifically in relation to these regulations Health and Safety Executive. They, with the Environment Agency, are the joint competent authority under both the Planning Hazardous Substances Regulations of 2015 and also the COMAH, or the Control Major Accident Hazards Regulations of 2015] - The wording is amended from what was said for clarity.	Please refer to the Applicant's response to Action Point 3 within the Written Summary of the Applicant's Oral Submissions and Responses at Issue Specific Hearing 3 and Responses to Action Points [EX3/GH8.1.21] in regard to not including the Health and Safety Executive as a consultee on the detailed Battery Storage Safety Management Plan.
SGHS-072	BESS	BESS Layout	We are only two years away, roughly, from the BESS actually being built. So, we must surely, one asks rhetorically, the applicant one must know pretty much know which battery system will	The Applicant cannot select a BESS design at the DCO stage because typically new BESS designs or new generation systems (integrating newly developed

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			be operated. All that we have to go on is APP-205 and APP-206 which are the layouts, the illustrative BESS layouts. Professor Dobson has referred to Option A, for which the layout there shows some 550-odd containers, some of them being only a metre apart. That does not seem to meet any category of minimum guidance for spacing. So, one has to ask, if in due course, when the HSE or the National Fire and Rescue Service are eventually asked for their views, they require greater spacing between containers, there would not be sufficient space at the Grendon BESS. The option then is also for a BESS site at Site C which appears only to have one access point.	battery cells) are released every 9-12 months. The **Concept Design Parameters and Principles document [REP1-151]** sets out the design parameters and principles by which the Scheme has been designed and the Environmental Impact Assessment has been undertaken. It will be secured by a Requirement in Schedule 2 to the **draft DCO [REP3-024]** in order to prescribe the guiding design principles and parameters to inform the detailed design of the Scheme post DCO consent. The detailed design of the Scheme will be developed in accordance with the assessed parameters, ensuring that the conclusions of the ES are maintained. The finalised design at the construction stage will be managed post-consent through the Requirements set out in Schedule 2 of the Draft DCO. Sections 4.1.16 - 4.1.23 of the **Outline Battery Storage Safety Management Plan** (OBSSMP) **Revision A [REP1-143]** details how the illustrative layout of the BESS area is fully compliant with NFCC guidance and NFPA 855 (2026) safety requirements. Large Scale Fire Testing (LSFT) of the selected BESS design to establish minimum equipment spacing distances and site-specific consequence

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				modelling will provide a clear, evidence-based case for the final BESS area installation plans at the detailed design phase and will be agreed with Northamptonshire Fire and Rescue Service (NFRS). An independent Fire Protection Engineer specialising in BESS will validate all UL 9540A, LSFT, and / or third-party test and site-specific consequence modelling data which has been provided. The Applicant will also commission site specific heat flux and flame tilt consequence modelling to account for site topography and wind conditions to establish final equipment spacing distances for the Scheme. Following discussion with the Northamptonshire Fire and Rescue service, the access for Green Hill Site C has been amended to include additional passing places as outlined in **Environmental Statement Figure 4.4.1 Illustrative Layout Plan Green Hill C Option A (Revision A) [REP1-107].** This has been agreed with the Northamptonshire Fire and Rescue Service in the **Statement of Common Ground [REP2-063].**

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-073	BESS	BESS Layout	Of course an alternative is that the Applicant will have to come back, after the DCO has been granted, to secure more battery storage land, and in which case compromises may then have to be made. Consequently, at this stage it is important to know what the spacing requirements are likely to be, what implications there could be in planning terms, for example the need for/height of bunding, and whether there is sufficient land. No viability evidence has been presented. The Examining Authority rightly query how much of the operating time BESS will be importing electricity from the grid. May well store imported electricity overnight e.g. during the winter months and sell it back to the grid the next morning at day-time rates. No evidence as to whether essential to viability.	Table 2 of the **Statement of Need [APP-556]** sets out the many different functions BESS can (and will be expected to) deliver to support renewable generators and a low-carbon electricity system. Figures 22 to 26 of the Statement of Need provide examples of how the proposed co-located BESS may operate to support the solar component of the Scheme. Chapter 10 of the Statement of Need provides evidence that, based on current economics, solar generation is likely to be one of the cheapest sources of electricity in both the 2020s and 2050 energy mix. However, a diverse mix of low carbon generation will be required to meet national decarbonisation targets. Investing in unsubsidised solar is therefore economically rational on a stand-alone basis and requires no cross-subsidisation financially to justify the cost of the principal development. For example, EN-3 Para 2.10.5 states that: "Solar farms are one of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation" The Concept Design Parameters and Principles document sets out the design parameters and principles by which the Scheme has been designed and the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				Environmental Impact Assessment has been undertaken. It will be secured by a Requirement in Schedule 2 to the draft DCO in order to prescribe the guiding design principles and parameters to inform the detailed design of the Scheme post DCO consent. The Environmental Impact Assessment has been undertaken based on the maximum extents of each of the Work Numbers described in Schedule 1 to the Draft DCO as shown on the Works Plans. This approach is known as the 'Rochdale Envelope' and Planning Inspectorate Advice Note 9 sets out advice on the use of the 'Rochdale Envelope' as a way of assessing a proposed development comprising EIA development where uncertainty exists with the final design details and necessary flexibility is sought. The use of the Rochdale Envelope is further discussed in Chapter 2: EIA Process and Methodology [EN010170/APP/GH6.2.2] and Chapter 4: Scheme Description [EN010170/APP/GH6.2.4]. The spatial extent of which works are proposed is shown on the Works Plans accompanying the DCO application [EN010170/APP/GH2.4] which are secured

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				by Article 3 of the Draft DCO [EN010170/APP/GH3.1]. The BESS for example is defined under Work No.2 Energy Storage Facility.
SGHS-074	Landscape and Visual Impact	Summary Points	Carly Tinkler: Summary The Applicant's LVIA4 is agreed as far as that during construction and the first 15 years of operation, the proposed development would give rise to significant adverse effects on landscape character and visual amenity. However, levels of adverse landscape and visual effects would be higher than assumed in the LVIA. However, after 15 years of operation, apart from at three of the numerous viewpoints identified, effects on character and views would continue to be significant adverse. Further, the claim of significant beneficial effects for the character of the sites is not agreed. The LVIA underestimates levels of adverse landscape and visual effects and overstates landscape and visual benefits. The majority of adverse effects on character and views would	The Applicant notes this comment. Please see response to SGHS-011.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			be significant adverse for the duration of the operation. The differences in judgements are partly due to differing interpretations / applications of the published guidance (eg GLVIA3).	
SGHS-075	Landscape and Visual Impact	Overestimation of landscape and visual benefits	In summary, the LVIA concludes that after 15 years of operation, effects on the character of the sites would be significant beneficial. The main reasons why the LVIA overestimates levels of beneficial landscape (and associated visual) effects are as follows: I. The LVIA departs from guidance by only assessing effects on the landscape '**fabric'** of the sites, **not** their overall character. II. Landscape 'fabric' is **not mentioned** in GLVIA3: by 'fabric', the LVIA means landscape 'elements' such as hedges and trees. III. The LVIA proposes to reduce high levels of adverse effects on landscape character and visual amenity by mitigating measures which comprise reinforcing	The Applicant notes this comment. Please see response to SGHS-011. The LVIA **[APP-045]** takes into account the effects on landscape character and visual amenity in detail, and acknowledges that there would be there would be an immediate change to the character of the Sites themselves and their immediate surroundings as they change from an area of arable farmland to solar infrastructure. The LVIA **[APP-045]** acknowledges a significant adverse effect to landscape character within 1km of the Sites during construction and operation Year 1. This relates to the change in landscape character from the addition of solar infrastructure. Adverse effects remain through to the decommissioning phase, although reduced and no longer Significant as a result of the establishment of the mitigation planting. NPS EN-1 recognises at para 5.10.5 that *"Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may*

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			existing on-site vegetation and planting new hedges and trees. IV. It concludes that after 15 years, when the planting has matured, there would be **significant beneficial effects on the site's landscape 'fabric'**, or elements. V. However, the LVIA assumes that these proposed landscape / visual mitigation measures can be **double counted** as landscape / visual enhancement measures / scheme benefits when GLVIA3 para. 3.39 explains they **cannot**. The double-counting error is explained in Section 4.2 of my Landscape Statement. *[REP1-195]* VI. Therefore, **at best**, the overall effect of the 'fabric' when mature would be **Neutral**, and **at worst, significant adverse**, due to the adverse effects arising from the mitigation measures, including uncharacteristically tall hedges, and most importantly, in many cases, a **total loss of view**.	*also be beneficial landscape character impacts arising from mitigation."* The Applicant would like to draw attention to GLVIA3, *Identifying the landscape effects and assessing their significance,* specifically para 7.25 which states that effects are likely to include (Applicants emphasis in **Bold**): • *"On the **fabric** of the landscape as a result of removal of or changes in individual elements or features of the landscape and/or the introduction of new elements or features;* • *On the aesthetic aspects of the landscape – for example its scale, sense of enclosure, diversity, pattern and colour, and/or on its perceptual or experiential attributes, such as a sense of naturalness, remoteness or tranquillity;* • *On the overall character of the landscape as a result of changes in the **landscape fabric** and/or in aesthetic or perceptual aspects, leading to modification of key characteristics and possible creation of new landscape*

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				character if the changes are substantial enough." And to *Scope and definitions* para 7.3 whish sets out: *"…effects that 'can impact on either the physical **fabric** or character of the landscape, or any special values attached to it."* The LVIA **[APP-045]** does not identify beneficial effects to Landscape Character as a result of the implementation of the landscape scheme during the construction period or operational lifetime of the Scheme. The proposed planting has been designed to provide greater enclosure across the individual Sites to help minimise the appreciation of the Scheme and to mitigate wider ranging adverse effects of the infrastructure on the character of the receiving landscape. This enclosure helps mitigate and therefore reduces the level of effect associated with the Scheme. However, the LVIA recognises that despite this, as a consequence of the development adverse effects would remain until the Scheme was decommissioned. It is acknowledged that the character of the Site itself, and its immediate surroundings would be adversely affected, with the land now presenting as a large scale solar

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
				scheme. At the point the Scheme is decommissioned the landscape proposals help provide the long term legacy landscape benefits as set out within the LVIA **[APP-045]**. The landscape proposals are substantial and the beneficial effects associated with these to landscape fabric are set out within the LVIA, with these associated with the tangible gains provided to landscape fabric.
SGHS-076	Agriculture and Soils	Long-term soil condition	The Applicant also claims long-term soil benefits. This is not accepted for the reasons explained below under the heading "soils / agriculture."	The Applicant's Response to SGHS-020, together with SGHS-076, 080 and 086, are provided separately at Appendix A below.
SGHS-077	Landscape and Visual Impact	Direct effects on overall character of sites	The conclusions about **direct** effects on the overall character of the **sites** are set out in my Landscape Statement *[REP1-195, at paras. 2.3.2 – 2.3.20]*. In summary, it is unclear why the LVIA has only considered effects on landscape '**fabric**,' and not the **overall character of the sites**. At para. 5.4, GLVIA3 explains that LVIAs should firstly establish the site's **overall character**, this being derived from a **combination** of factors of which landscape elements (which the LVIA calls '**fabric'**) are **just a part**.	The Applicant notes this comment. Please see response to SGHS-011 and SGHS-075. The LVIA **[APP-045]** contains detailed descriptions of the character of each individual Site Appendix 8.4: Landscape Character Area Descriptions **[APP-082]** contains details and extracts of published landscape character documents available within the Study Areas for the Scheme. Appendix 8.4 also includes interpretation and expansion of those characteristics relevant to the individual Sites, however a detailed identification of Landscape Character is contained within the LVIA **[APP-045]** within Section 8.6 Baseline Conditions. This is

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Other factors include aesthetic and perceptual qualities, and natural, cultural, social and visual aspects, features, functions and services, as set out in GLVIA3, and illustrated on page 9 of Natural England's 2014 publication An Approach to Landscape Character Assessment, in Figure1: What is Landscape?. The factors of relevance to this project are described in Section 3.1 of the Landscape Statement. Having **established** the site's overall character, LVIAs should then **assess effects on** the site's overall character, not just on landscape elements, or 'fabric' *[See GLVIA3 paras. 5.34 to 5.36]*. In reality, there would be **significant direct adverse effects on the overall character of the sites from start to finish** due to the change from greenfield to developed land, in this case, from agricultural to industrial use: these direct effects could not be mitigated.	then further expanded upon, including the identification of landscape value, susceptibility and sensitivity within the assessment sheets for each of the varying Sites and Study Areas within 6.3.8.3A Environmental Statement Appendix 8.3 ES LVIA Assessment Sheets (Revision A) **[REP1-041]**.
SGHS-078	Landscape and Visual Impact	Indirect effects on character up to 1km from sites' boundaries	Indirect effects on character usually occur off-site. Importantly, the LVIA assumes that **all** adverse indirect effects on character	The LVIA does not assess that all adverse effects on landscape character could be mitigated by the screening of views, with adverse effects identified as remaining

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			can be mitigated by screening views, whereas effects on **non-visual experiential landscape qualities** such as **tranquillity** are very difficult if not impossible to mitigate. Also, the LVIA predicts that levels of indirect effects on the overall character of the landscapes lying between the sites and up to 1 kilometre from their boundaries would be **exactly the same**, which of course, they would not. This error is partly due to the LVIA having categorised all the landscapes within 5 kilometres of the sites' boundaries as having the same levels of value and susceptibility to change, despite the notable localised variations. It is also due to the LVIA not having factored in that the **highest** levels of indirect effects on character occur **closest** to the site, and **levels reduce gradually with distance to Neutral**. It is concluded that **indirect effects on the overall character of the landscapes closest to the sites would be significant adverse for the duration of the operation**, and the industrialising influences would extend	through to the decommissioning phase, although reduced and no longer Significant. The LVIA **[APP-045]** has undertaken a robust assessment of the sensitivity of landscape receptors. The judgement on landscape sensitivity is based on consideration of both the landscape receptor's value and its susceptibility to change arising from the Scheme. Details on how landscape value and susceptibility have been assessed are set out within the LVIA Methodology, Appendix 8.1 **[APP-078]**. Appendix 8.3.2.2 (REV A) **[REP1-041]** sets out an assessment of the Value, Susceptibility and Sensitivity for Landscape Character for each of the individual Sites within the Scheme within each of the 3 Study Areas. This approach has allowed for the individual characteristics and local variation that are present within the landscape in and around each of the individual Sites to be fully accounted for within the assessment of Landscape Sensitivity.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			for **many kilometres beyond the Order Limits**.	
SGHS-079	Landscape and Visual Impact	Underestimation of levels of adverse landscape and visual effects	The main reasons why the LVIA underestimates levels of indirect adverse effects on the character of the landscapes beyond the sites' boundaries, and adverse visual effects generally, include the above and other factors *[See the Landscape Statement REP1-195 and Appendices REP1-193]*: 1. Use of a four-point scale, which skews the results *[Landscape Statement paras. 2.4.9 to 2.4.17]*. 2. Problems with the criteria used for value and susceptibility *[Landscape Statement para. 3.1.65 to-3.1.73 and Section 3.2]*. 3. Many visual receptors were scoped out on the basis of views currently being screened by vegetation *[Landscape Statement para. 7.2.4]*. 4. Not all relevant landscape receptors, qualities and functions were identified, nor factored into the baseline studies, so effects on these receptors were not assessed *[Landscape Statement paras. 2.3.21*	The LVIA **[APP-045]** has been undertaken with consideration of the appropriate and relevant guidance and robustly assesses both the landscape and visual effects of the Scheme independently to ensure both the impacts and effects on the fabric and character of the landscape are taken into account as well as the views and visibility. A detailed LVIA methodology that conforms to the landscape Institutes Guidelines for Landscape and Visual Impact Assessment (GLVIA3) is included within ES Appendix 8.1 **[APP078 & APP079]**, which has been progressed and agreed with the Local Planning Authorities. The LVIA has undertaken a worse case assessment in accordance with the principles of the 'Rochdale Envelope'.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			to 2.3.31, paras. 3.1.6 to 3.1.64 and sub paragraph (IV) above.]. 5. Notable localised variations in local landscape character were not recognised and not factored into judgements about landscape and visual value and susceptibility. 6. Levels of landscape value and susceptibility to change were underestimated due to the lack of granular baseline study and analysis *[Landscape value factors covered in the Landscape Statement paras. 3.1.6 to 3.1.64. Heritage at paras. 3.1.18 to 3.1.26, and 3.1.44 to 3.1.51 Aesthetic and perceptual qualities at paras. 3.1.27 to 3.1.35 Buffer / gap at paras. 3.1.53 to 3.1.55 Ecology at paras. 3.1.56 and 3.1.57 Recreation / amenity at paras. 3.1.58 to 3.1.64. Also see landscape susceptibility to change at paras. 3.1.65 to 3.1.73, and landscape sensitivity at paras. 3.1.74 to 3.1.83.]*. 7. Levels of magnitudes of effect were underestimated, partly due to the LVIA not considering the cause and nature of many of the impacts and effects *[Landscape Statement Section 5, and effects sections]*.	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			8. The LVIA did not differentiate between direct and indirect landscape effects. 9. The LVIA erroneously assumes that all indirect adverse effects on character can be mitigated by screening *[Landscape Statement paras. 6.1.23 to 28]*. 10. The adverse effects arising from the proposed mitigation were not considered (tall hedges uncharacteristic, and total loss of view) *[Landscape Statement paras. 9.18 (h) and (i)]*. 11. The LVIA does not report the worst-case visual scenario of effects at winter Year 15, only in summer when trees would be in full leaf *[Landscape Statement paras. 7.1.5 -to 7.1.11]*. 12. There is over-reliance on vegetation to screen views in the longer term, especially off-site *[Landscape Statement Section 4.4.]*. Most importantly, the LVIA does not assess effects on the overall character of the sites, only their 'landscape fabric.' The LVIA has also not assessed the effects arising from the alternative option of BESS on Site C.	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-080	Agriculture and Soils	Soils / Agriculture	Effects on soils generally are set out in REP1-193 Appendices to the Landscape Statement, Appendix CT-E: Effects on Water and Soils. The Applicant claims that the development would result in long-term soil benefits This is not accepted *[Landscape Statement at paras. 6.2.22 to 6.2.34]*. In summary, it is highly unlikely that the land could or would be restored to its current condition and use, as the Applicant proposes and assumes (the LVIA states that 'agricultural fields would be returned to agriculture with all structural landscape mitigation retained'). The soils' ALC grades would almost certainly be lower than they are now. The Applicant appears to assume that 'resting' arable soils for long periods is beneficial for soil health and quality. In fact, it is the complete cessation of arable use that is beneficial for soil health and quality in terms of ecology, because biodiversity increases as fertility reduces. However, here, the intention is to restore the land to arable production. From an agricultural perspective, long periods of resting are not beneficial for	The Applicant's Response to SGHS-020, together with SGHS-076, 080 and 086, are provided separately at Appendix A below.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			soil health and quality, because of the significant reduction in fertility. It is extremely difficult to restore soil fertility and can take decades. Also, any ecological benefits that had accrued over time would be lost when the land was returned to productive arable use. In addition, the Applicant has not considered how the proposed wildflower meadow / pasture would successfully establish on arable fields, given that they require low fertility soils and the receiving soils are highly fertile *[See REP1-193 Appendices to CT Landscape Statement, Appendix CT-F: Land Restoration, Soil Quality and Fertility]*. Furthermore, the Applicant claims that continued agricultural use could continue by grazing sheep within the solar array areas. However, this is considered unlikely to happen and so far, very few examples of this practice in the UK have been found *[The prospects of sheep being grazed is discussed in the Landscape Statement Appendix CT-H [REP1-193].]*. Para. 9.31(v) of the Applicant's Farming Report *[APP-571]* refers to	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			data from Defra's Land Use statistics for England for 2024. The figures appear to suggest that 50% of solar sites are grazed by sheep. However, this figure excludes large-scale solar farms *[This has been confirmed in email correspondence with Defra.]*.	
SGHS-081	Landscape and Visual Impact	Design	The landscape-related aspects of site selection / scheme design are in the Landscape Statement REP1-195 Section 2.1. Regarding design generally, in ExQ1 [PD-007], at Q3.0.3, the ExA asked the Applicant whether the project should be subject to an independent design review. The Landscape Statement explains that it seemed unlikely that the high levels of adverse landscape and visual effects arising from the Scheme could be mitigated through design measures other than those considered at a much wider landscape scale in terms of location, and perhaps siting, especially as the design of and materials used for the majority of the scheme elements are pre-determined *[Landscape Statement paras. 2.1.16 to 2.1.18]*.	The Applicant notes this comment.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			However, ExQ1 Q3.0.4 asks the Applicant about the selection of colours for certain scheme elements. The Landscape Statement suggests that an Environmental Colour Assessment could be the best way of integrating built form into its landscape and visual context *[Landscape Statement paras. 2.2.20]*.	
SGHS-082	Glint and Glare	Glint and Glare	This matter is explained in the Landscape Statement, Appendix CT-I: Glint and Glare [REP1-193]. The Applicant's Glint and Glare Assessment ("GGA") is ES Chapter 15 [APP-052]. GGAs primarily consider safety. They assess the effects of glint and glare on human receptors who, if affected by the phenomena, could potentially cause a major accident resulting in large numbers of casualties, ie pilots and people in air traffic control towers; train drivers; and people driving vehicles along "major national, national, and regional roads." GGAs usually consider effects on the safety of people using minor roads and lanes, and sometimes PRoWs. The Applicant's GGA has done so, along with receptors at horse facilities,	The Applicant acknowledges this comment.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			and agricultural workers, at the Examiners' request.	
SGHS-083	Glint and Glare	Glint and Glare Assessment Methodology	However, as in other GGAs, these people are categorised as Low sensitivity receptors, mainly due to the assumption that only low numbers of people use minor roads and PRoWs, and therefore, any incidents would result in low numbers of casualties *[The reasons for the Low sensitivity judgement are explained in GGA paras. 15.4.21 and 22; see also the Landscape Statement (REP1-195), Appendix CT-I paras. I1.23 to I1.28, and 49 to 77.]*. It is not acceptable to say that because receptor numbers are low, levels of effects would be Low because multiple casualties / fatalities would not occur. Surely just one fatality / serious injury along a local lane or PRoW should be of concern. Also, some of the lanes and PRoWs in the study area are popular and very well used, especially the long-distance trails, and the footpaths and bridleways which connect them to each other, and to the towns and villages. Many users are of High visual sensitivity.	The Applicant has considered potential impacts on local roads in West Northamptonshire Council as summarised in **Glint and Glare Technical Note [REP2-054]**. The Technical Note concluded that a low impact may be classified towards local roads within West Northamptonshire Council, and that a non-significant effect is determined. The Applicant has discussed potential impacts towards local roads with North Northamptonshire Council's Highways Officer. A Technical Note will be submitted at Deadline 4.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-084	Glint and Glare	Assessment of visual amenity	GGAs, including this one, also assess effects on residential visual amenity. However, they do not assess effects on public visual (or social / recreational) amenity, in terms of the adverse changes to the experiences of people using local lanes and PRoWs, and visiting heritage assets, equestrian centres, and other attractions. There is no analysis of the effects of glint and glare on visual or other amenity in the LVIA either, or on landscape character. The GGA erroneously assumes that existing and / or proposed vegetation would fully screen views all year round, whereas a) most views would only be filtered in winter; b) elevated views would not be screened; and c) some existing tree belts relied on to fully screen are very thin / gappy. Also, the GGA erroneously assumes (as does the LVIA) that views would be screened by vegetation for the duration of the 60+-year operation, which cannot be guaranteed and is highly unlikely *[See the Landscape Statement (REP1-195) Section 4.4.]*.	Receptors assessed within the Glint and Glare Assessments are as recommended within industry guidance and best practice, and as have been included for other, approved, DCO Solar applications. Where possible, winter months have been referenced to illustrate existing vegetation as this is expected to be when vegetation is most sparse. Where vegetation has been considered as mitigation, the maximum height of the panels have been considered. The **Outline Landscape and Ecology Management Plan (OLEMP) [REP1-137]** prescribes how the mitigation measures identified and proposed are to be implemented and managed to ensure the effectiveness and certainty in achieving the objectives of the mitigation strategy throughout the lifetime of the Scheme. The OLEMP sets out a framework for the establishment of the planting on site for the duration of the Scheme; together with the management and monitoring of the landscape and ecological mitigation and enhancement of habitats on which this framework is based.
SGHS-085	Glint and Glare	Avian and ecological impacts	In addition, the risks to both aviation and ground-based receptors from bird	The risk of bird strike is not increased by the installation of the Scheme. The

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
	Ecology and Biodiversity		strike have not been considered. If an issue, a Bird Hazard Management Plan may have to be produced, which could have implications for the landscape, visual, and ecological assessments. Importantly, the ExA asked the Applicant to consider the ecological effects of glint and glare. The assessment undertaken by the Applicant is inadequate *[See the Landscape Statement, Appendix CT-I, paras. I1.32 to I1.39]*. Many receptors could be significantly adversely affected by glint and glare. Note that during ISH-1 the Applicant's landscape expert confirmed that no screen planting is proposed along the PRoWs running through solar arrays, so the adverse effects of glint and glare would not be mitigated.	Scheme will not serve to attract flocks of gulls or wildfowl (which are the species most liable to cause bird strike) in numbers above baseline levels, or in particularly dense concentrations. Displacement of nesting birds such as skylark is not considered likely to increase occupancy of the land at nearby aerodromes, such as Sywell Aerodrome. Aerodromes are also typically favourable habitats for species such as skylark and likely to already host such species. As summarised in ES Chapter 15 Glint & Glare [APP-052], the Applicant has considered impacts towards Public Rights of Way. It is considered that the potential impact toward users of Public Rights of Way are low, and therefore a non-significant effect is predicted.
SGHS-086	Agriculture and Soils Alternatives and Design Evolution	BMV Land	Mr Nicholls' submissions address the site search (REP1-230). All of the sites were selected without agricultural surveys having been undertaken to determine which land within the areas of search was Grade 3a and which Grade 3b. By March 2024 Sites A-F and the BESS Site had been identified; May	The Applicant's Response to SGHS-020, together with SGHS-076, 080 and 086, are provided separately at Appendix A below.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			2024 added Site G; and in June 2024 Site A2 was added. By June 2024, all sites had been identified *[See September 2024 Workshop Summary report [APP-027, PDF pages 4/11].]*. The Scoping report for the ES in July 2024 *[[APP-066] PDF 328/363 para 21.3.14]* said that surveys of the selected sites were then being undertaken. *[May to July 2024]* It cannot be said that it was not possible to avoid the 'best and most versatile' agricultural land (which of course, includes Grade 3a but excludes Grade 3b). This is a serious breach of government policy and is a fatal flaw which clearly points to a refusal of the DCO for this scheme. Figure 7.4 of the Scoping Report *[APP-067 page 56/93]* shows Provisional Agricultural Land Classifications ("ALC"). Mr Kernon knows and has asserted in his proof of evidence to an inquiry since ISH-1 that such maps, "are not based on extensive field survey and are not to be relied upon for site specific use, and are of limited accuracy …" *[Kernon Proof of Evidence in respect of land south of Kings Newton Lane, Melbourne, South Derbyshire, October*	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			2025, paragraph 7.20. A copy is attached at Appendix A. **{REP3-100}***]* Even within the sites selected, there is no evidence that the applicant has sought to avoid BMV land, and there is no explanation why BMV fields have been chosen. For example, in Site A: • APP-067 page 56/93 shows the area around Walgrave as Grade 3 on the ALC Maps. • The ALC Maps suggested that there was no Grade 2 land around Walgrave. • The results of 2024 survey *[Farming Report APP-571, PDF page 108 of 155]* show that much of Walgrave/Site A is in fact Grade 2 and Grade 3a, with some 3b. The field numbering for Site A is shown on APP-067 (ES Scoping report 2 of 9) - PDF page 18 of 93. As just one example, Field AF29 within Site A is shown to be a mixture of Grades 2 and 3a *[See point 4 above APP-571 p.108]*, yet solar arrays are still proposed for that field, on the entrance from the north to Walgrave. There is no explanation as to why it was not possible to avoid that field. If it is said to be because Site A would not be viable, no evidence has been	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			produced to demonstrate this. It is wholly inappropriate to present this case without explanation and supporting evidence (if of course such exists at all). The same points apply to all the other sites. The choice of sites was therefore flawed at the outset because no proper agricultural surveys have been undertaken to inform the site selection process, so they need to start again and do a proper site selection exercise which reflects the need to avoid, where possible, BMV land.	
SGHS-087	Cultural Heritage	Heritage	This relates to the discussion at ISH-1 of the heritage impacts on the Conservation Areas of Easton Maudit and Mears Ashby and Listed Buildings in Easton Maudit. The Lead Inspector's (Mr Harrison) first question at ISH-1 queried with Mr Podbury [By reference to Table 12.28 in ES Chapter 12 [APP-049] [(significant residual effects), PDF page 92 of 106.] whether there were any additional mitigations that could be imposed to reduce the moderate adverse residual effects further in respect of Mears Ashby and Easton	**ES Volume 1, Chapter 12: Cultural Heritage [EN010168/APP/6.1],** supported by **Volume 3, Appendix 12.1: Heritage Statement [EN010168/APP/6.3],** has assessed the potential impact of the Scheme on built heritage assets, and where required appropriate mitigation has been proposed (see Section 12.9 of **ES Volume 1, Chapter 12: Cultural Heritage [EN010168/APP/6.1]** for embedded mitigation and Section 12.11 for additional mitigation). The Scheme's design has evolved through an iterative process through ongoing collaboration between the Applicant, the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Maudit Conservation Areas and 2 particular Listed Buildings in Easton Maudit: the Grade 1 listed church and the Grade 2* building 22 High Street The written summary of Applicant's Oral submissions at ISH-1 [REP1-162 (PDF page35 of 61)] states Mr Podbury's response as being: "The Applicant believes the mitigation has reduced the level of impact to the lowest practicable level (i.e. less than substantial harm in NPPF terms)." (note those words not stated by Mr Podbury cf EV2-008 Video 4) The Applicant's team has added words. The words "lowest practicable level … less than substantial harm" have been added and were not said: see Recording 4 of ISH 1, EVA-007 50 minutes 18 seconds to 51 minutes 35 seconds. Should have been made clear. Mr Podbury [At 51 minutes 35 seconds of the Recording and as set out in the Summary of Oral submissions] went on to state that no more could be done and then added "without those areas being unviable." However, no evidence whatsoever is before the Examination regarding the viability of those or any of the other sites. It is wholly inappropriate for an	design team, and the environmental consultants. As outlined in **Chapter 5: Alternatives and Design Evolution [APP-042]**, preliminary layouts were developed with support of early surveys, data collection, and the scoping of environmental topics and receptors. A summary of the design evolution is presented in Tables 5.8 and 5.9 of **Chapter 5: Alternatives and Design Evolution [APP-042]**. The Applicant would not, at this stage, propose any further additional mitigation. The Applicant considers that mitigation of the identified heritage impacts has been carefully and iteratively incorporated into the Scheme design. Throughout the design process, the historic environment has been a key consideration. The Scheme has been refined, where practicable, to avoid or limit effects on the setting of heritage assets. This has included the careful placement of infrastructure to reduce potential indirect impacts, the removal of solar panels from fields identified as particularly sensitive, and the retention of visual corridors, historically associated routes, and established views connecting the Conservation Areas and the Grade I and Grade II* buildings. These iterative design measures were developed in response to the assessments reported in

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			assertion to be made as to viability, and, with respect, from a heritage witness whose discipline obviously does not include viability. As the ExA has demonstrated through its questions, it has an important inquisitorial role, not to accept assertion. As to the added words "lowest practicable level … less than substantial harm" the applicants themselves acknowledge in ES Chapter 12 (para 12.4.21) that there is no direct correlation between moderate adverse harm and less than substantial harm. Moreover, the findings of the Heritage chapter regarding the 2 Conservation Areas and 2 important Listed Buildings appear to place the harm in the middle of the spectrum/scale of less than substantial harm* – the middle of the spectrum/scale of less than substantial harm is plainly not the lowest practicable level. APP-110, page 9 of 227 (Non-Technical Summary) of Appendix 12.1 and page 85 [PDF page 85 of 227, paragraphs 7.1.3 to 7.1.5: the three summary paragraphs], refer firstly to harm at the upper end of scale (Low	ES **Chapter 12 [APP-049] and Appendix 12.1 [APP-110]** and represent a proportionate and evidence-based approach to mitigation. **ES Chapter 12: Cultural Heritage [APP-049], supported by ES Appendix 12.1: Heritage Statement [APP-110 to APP-120]**, has identified a moderate adverse residual effect would occur as a result of the Scheme to two Conservation Areas (Mears Ashby and Easton Maudit Conservation Areas) and two Listed Buildings (Grade I Listed Church of St Peter and St Paul (NHLE 1189610) and Grade II* Listed 22 High Street (NHLE 1040784)). The Applicant considers that mitigation has been incorporated to the fullest extent practicable and that no further proportionate measures have been identified by the Applicant's technical team at this time. The Applicant considers that the mitigation secured through this iterative design process has reduced the level of impact to the lowest practicable level in NPPF terms and represents a robust and appropriate and reasonable response to the heritage effects identified. Residual harm being described as in the "middle" of the less than substantial spectrum should not be taken as implying

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Farmhouse), the third paragraph refers to harm at the lower end of the scale (18 designated and non-designated Heritage Assets). The second paragraph refers to 17 designated and non-designated Heritage assets (including the relevant Conservation Areas and the Listed Buildings in Eason Maudit), implicitly in middle of the scale though not expressly stated. Regarding the Grade 1 listed Church of St Peter an St Paul in Easton Maudit, there is no indication of where on the spectrum of less than substantial harm the impact is considered to fall [APP-110 ES Chapter12, Appendix 12.1 page 60 of 227]. Similarly with Easton Maudit Conservation Area [Ibid, page 65] and Mears Ashby Conservation Area [Ibid, page 68]. This is sloppy on such an important point. Grade1 and 2* are assets of the highest significance [NPPF para 213(b)]:. There is no viability evidence therefore regarding BMV land, heritage or BESS. Consequently, harm does not appear to have been reduced to the lowest practicable level; and there is no	that the Scheme has fallen short of the lowest practicable level. That term relates to whether mitigation and heritage-led design have been advanced as far as reasonably achievable through proportionate and deliverable measures embedded in the design. It does not require residual harm to be low in itself; outcomes may still appropriately be judged as moderate or "middle" even after impacts have been reduced to the limit of what is reasonable and practicable. On this basis, the Applicant considers that the mitigation already embedded in the Scheme represents the lowest practicable level of residual impact in NPPF terms. While some less than substantial harm remains, this is a reflection of the intrinsic sensitivity of the assets, rather than any shortfall in the assessment or design process. The approach taken ensures that heritage impacts have been reduced as far as reasonably practicable, and that the remaining effects are both recognised and appropriately managed within the overall Scheme design.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			evidence to show that the applicant cannot do more.	

2.5 Responses to Examining Authorities Second Written Questions

Table 2.6: Document reference: [REP3-103]

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
SGHS-088	General Matters Energy Need	Q2.1.4 Importing electricity to the Battery Energy Storage System (BESS)	SGHS note that the ExA is querying why an import capability from the National Grid is required. This has always been a stated objective of the development project *[See APP-559 Planning Statement May 2025 paragraph 2.2.154 page 26]*. The objective is to "recharge" the BESS by a "call" (500MWe of instantaneous electrical power) from the National Grid when wholesale electricity import rates are favourable (usually at night when UK electricity demand reduces) and then to sell the power back to the National Grid when electricity export rates are favourable (usually during the day when electricity demand increases). This is known as "arbitrage trading". It	The Applicant notes this comment and refers to its response to the ExA's Q2.1.4. Flexible assets are needed to store renewable energy which is generated in abundance, for export to the grid when it is needed. In doing so, flexible assets **reduce** the need for dispatchable fossil fuel assets to meet demand when renewable generation on its own cannot, and in so doing, reduce the carbon intensity of the grid. The Applicant does not agree that "At times of low wind generation in the winter it is very likely to create an extra "phantom" call on the UK dispatchable 24/7/365 natural gas turbine (Ccgt) power generators" because this would result in the BESS importing (buying) energy when supplies are low and therefore when prices are high, only for that energy to be exported (sold) when prices are lower resulting in a commercially irrational operation.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			will occur mainly in the winter when there is little or no solar power generation and is completely agnostic as to the source of the power being imported to recharge the BESS. At times of low wind generation in the winter it is very likely to create an extra "phantom" call on the UK dispatchable 24/7/365 natural gas turbine (Ccgt) power generators. This pure winter trading "grid services" activity has little to do with Net Zero / reducing carbon emissions and is much more about maximising the return on the BESS investment.	
SGHS-089	General Matters Energy Need	Q2.1.6 Layout of the Bess sites	The SGHS notes the ExA has a query regarding BESS area "oversizing". App-205 Option A Grendon BESS and App-198 Green Hill C BESS	This comment confuses energy capacity (MWh or GWh) with BESS rated power capacity (MW or GW). An explanation of these parameters is provided at Section 6.11 of the **Statement of Need [APP-556]**. For clarity, Table 1 of the Statement of Need includes the power (MW, or GW) capacity ranges for batteries established in the government's Clean Power 2030 Action Plan. The BESS therefore do not

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			show the Option A Tracking 650MWpeak *[500MWpeak x 1.3 times overplanted]* solar generation the Plans together show 555 + 336 battery storage containers at 3.7MWhrs capacity each *[From App-167 BESS Fire Modelling bottom, of page 16]*. This would give a total Option A BESS storage capacity of 2.035GWhrs plus 1.243GWhrs (respectively): a total 3.278GWhrs that would last for 6.5 hours at a 500MWe export rate. App-206 Option B Fixed Frame 800MWpeak *[500MWpeak x 1.6 times overplanted]* solar generation Grendon BESS only. Under Option B there is no BESS at the Green Hill C site which is given over to solar panels. The Grendon Option B App-206 Plan shows 455 battery storage containers	represent the percentage of either short or long term electricity storage requirements calculated in this response, but indeed a much smaller percentage of the government's Clean Power 2030 battery capacity range (circa 500MW / 27000MW = 1.8%, as calculated from the numbers included in the response). This would be the case whether the BESS would be delivered on Green Hill BESS, Green Hill C, or both. The Government's Clean Power 2030 Action Plan establishes capacity ranges to guide the development of clean energy supplies, including flexible assets, to deliver a clean energy system on the way to achieving net zero carbon emissions by 2050. However, the Government is clear that its plan retains optionality because it is not clear which of the many scenarios of technology deployment will be achievable. Therefore the Government will regularly review its capacity ranges and this will drive iterations in the prioritisation of schemes for connection, across all clean power technologies. Government confirmed in its 2025 consultation response to Planning for New Energy Infrastructure, available at https://www.gov.uk/government/consultations/planning-for-new-energy-infrastructure-2025-revisions-to-national-policy-statements/outcome/2025-revisions-to-national-policy-statements-government-response-accessible-webpage, that: "Clean Power 2030 is a milestone that reflects the scale of ambition required to meet our Net Zero 2050 target; it is not a fixed ceiling on technology deployment or project approvals".

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			which at 3.7MWhrs capacity each (as above) would give a total Option B BESS storage capacity of 1.683GWhrs that would last for 3.4 hours at a 500MWe export rate. Both Option A and Option B are very substantial battery storage (BESS) investments. As a measure of comparison for relative size the DES&NZ Clean Power 2030 Action Plan (December 2024) Battery Storage (flexible) (page 95) seeks 27GW(hrs) of dispatchable 2 hour storage and 6GW(hrs) of Long duration storage (up to 6 hours) (page 109). The Green Hill Option A proposals would represent 3.278 / 27 x 100 = 12% (of short term National Grid electricity storage requirement) and 3.278 / 6 x 100 = 54% (of long term National Grid electricity	Therefore, Government does not seek to constrain ambitious deployment of clean energy technologies and indeed, the Government is "expecting an increase in planning applications with the Clean Power 2030 target" **(CP2030, p55)** Bringing forward large capacities of schemes also means that there are options which encourage competition between schemes at later stages of project development, e.g. contract award. Further, some projects may not make it to fruition. Projects may fail at all stages of development, and NESO have previously stated that only 30-40% of projects in a queue succeed. The projects that NESO have prioritised for connection before 2030 and 2035 are not guaranteed to deliver merely because they have been prioritised. For these reasons, it is not government's intention that project approvals should be limited by the capacity ranges, or by NESO's prioritisation, because capacity ranges and progress towards them may change in future years. For these reasons, the Applicant considers that there is a need for both the solar and storage components of the Scheme.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			storage requirement) which would appear to place the grid in a very precarious position should any disaster befall the Green Hill Solar proposed development. This may also signal some degree of oversizing by the Applicant.	
SGHS-090	Ecology and Biodiversity Agriculture and Soils	Q2.7.7 Llanwern Solar Scheme	Llanwern Solar Farm is 260 acres in area. The site was part of Gwent Levels SSSI and is understood to have been mostly neglected agricultural grazing land. The height of ground-mounted solar panels is about 2.5 – 3 metres. They are understood to be non-tracking. Green Hill Solar is almost 3,000 acres in area, mostly on productive arable agricultural land. The type PV panels has yet to be decided, but it is anticipated panels would	As previously addressed, various measures are in place to ensure the minimisation of pollution risk, as detailed in the **Outline Construction Environmental Management Plan (Revision A) [REP1-131]**, **Outline Operational Environmental Management Plan (Revision A) [REP1-133]** and **Outline Battery Storage Safety Management Plan (Revision A) [REP1-143]**. Consideration of pollution impacts, specifically in relation to ecology and biodiversity, are addressed for this Scheme in the **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033]**. The Applicant has not seen the post-construction monitoring report associated with the Llanwern scheme, and is not able to comment on the findings in relation to bats on this project. The Applicant would highlight that in order to be robust, monitoring surveys should replicate the baseline survey methodology and cover an extended period across the year, given bats' variable levels of activity dependent on factors such as seasonality and weather. With regard to the Green Hill Solar Scheme, impacts on bats are assessed in the

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			be 4.5 metres in height and probably tracking. The adverse effects on ecology in the post-construction monitoring report on Llanwern Solar Farm include marked increases in levels of toxic pollutants, decimation of bat populations, and the compaction of soil and lack of vegetation growth under panels. Toxic pollutants: The Applicant in REP2.048 states that: 'Regular inspections and maintenance of battery storage systems and solar panels will be routinely undertaken to identify any signs of potential leakage, wear, or faults. This ensures early detection and rectification of issues, thereby minimising operational risks. Additionally, solar panels will undergo routine cleaning using water only,	**Environmental Statement Chapter 9 Ecology and Biodiversity [REP1-033]** and predict significant long term beneficial effects on bats. Please refer to the Applicant's responses to GrPC-003 and AGR-006 in **The Applicant's Responses to Written Representations at Deadline 1 [REP2-048]** for comments relating to soil compaction. The Applicant's Ecologist has been involved in the monitoring of well over a hundred active solar arrays across the UK. Results are published annually in the 'Solar Habitat' document, in conjunction with Solar Energy UK (Ref 1.1). Whilst the scale of monitored schemes thus far are smaller than the proposed Scheme, the principles of the proposals of PV solar development are comparable. The monitoring results demonstrate that grassland habitat directly beneath panels is typically less diverse than grassland at the edges of the arrays or outside of the security fencing; however, a stable sward can be established and is regularly recorded across monitored operational sites. The proposed habitat types and conditions presented within the **Environmental Statement Appendix 9.13 Biodiversity Net Gain Assessment (Revision A) [REP1-043]** are based on the observed, real-world findings from the Applicant's Ecologists experience of monitoring operational solar farms and are therefore considered realistic and achievable.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			to prevent environmental contamination and maintain optimal performance.' *[The Applicant's Responses to Written Representations at Deadline 1 (REP2.048), Table 7.12: Ground Conditions, Reference GRO-001, page 375.]* This is an acknowledgement that problems could arise from the solar panels themselves. But there is no evidence in the post-construction monitoring of Llanwern Solar Farm that the contamination was due to faulty solar panels. The onus is on the Applicant to demonstrate that there would NOT be any such issues, not for Stop Green Hill Solar to prove that there would be. Decimation of bat populations This is what was found in post-construction	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			monitoring at Llanwern: it is not speculation. Please also see answer below to Q2.7.8. Compaction of soil and lack of vegetation growth under the panels The proposed Green Hill Solar development is on a much larger scale than the already developed Llanwern scheme. The proposed panels are considerably larger and probably tracking. It would be a reasonable assumption, although unproven, that the ground mountings would need deeper piling, with larger and heavier equipment required to achieve this, and the panels themselves would potentially be heavier particularly including equipment to allow tracking. So the likelihood of soil compaction in the	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			area of solar panels is probably significant. As far as lack of vegetation growing under the panels is concerned, the Applicant states in REP2.050 that: "Recommendations for the creation and management of habitats within the solar arrays is based on the findings of extensive long-term monitoring of active solar arrays by the Applicant's ecologist, providing a degree of confidence that the proposals are reasonable and practicable." *[The Applicant's Responses to Deadline 1 Submissions (REP2.050), Reference SGHS-055: Notes on Ecology Aspects – Dr Linda Twohey, page 113]* However, there is no evidential basis for this claim The only potentially comparable solar farm on this scale already	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			constructed is Cleve Hill, North Kent, which became operational as recently as summer 2025. There cannot have been any long-term monitoring of any scheme similar in scale to the current proposal. Again, the onus is on the Applicant to demonstrate that their proposed development WILL NOT have these adverse effects. In conclusion, the information provided by Stop Green Hill Solar is not about comparing, we're simply showing that the construction of solar developments can lead to significant direct and indirect adverse effects as evidenced by Llanwern.	
SGHS-091	Ecology and Biodiversity	Q2.7.8 Bat Study Methodology	The applicant is critical of the study bat activity and solar installations undertaken by Bristol University. This study will	The Applicant would note that understanding and recognising the limitations of any scientific research is essential when ensuring that conclusions are appropriate and transferable to other contexts. In this case, the Applicant's ecologists have identified several constraints in the Tinsley *et al.* paper cited,

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			have been peer reviewed by expert ecologists in order to have been accepted for publication in an established journal. Therefore, it will have undergone thorough scrutiny of the methodology employed *[Tinsley E, Froidevaux JSP, Zsebok S, Szabadi KL, Jones G. Renewable energies and biodiversity: Impact of ground-mounted solar photovoltaic sites on bat activity. Journal of Applied Ecology, 2023; 60(9), 1752-1762]*. As far as I can establish, the height used by the ecologists (working for the Applicant) for their static detectors was 2 metres (as opposed to the 1.27 metres in the above research). They do not state this directly in their ES document on Bat Surveys *[APP-089]*, but they reference the method to the Bat Conservation	which are detailed in the **Environmental Statement Chapter 9 Ecology and Biodiversity (Revision A) [REP1-033]**. The comment states that in the cited Tinsley *et al.* study, the activity of various species 'reduced' in the solar farms compared to the paired 'control sites' without solar panels. However, a key constraint of this study is that the factors considered when pairing the solar sites and control sites were not clear, and it is highly unlikely that the many factors which can result in variability in bat activity between locations (such as the presence of nearby roosts, habitat quality and landscape connectivity) were sufficiently controlled. It is therefore the Applicant's position that the comparisons drawn between the solar sites and their paired control site should be treated with extreme caution, and that there is insufficient evidence to conclude that variations in bat activity between the paired sites was attributable to the presence of solar panels and associated infrastructure. The Ecology sector at large is aware of the potential limitations of this research, and the Applicant would refer SGHS to paragraphs 4.4.5 - 4.4.6 of the UK Bat Mitigation Guidelines (Version 1.2, Chartered Institute of Ecology and Environmental Management, August 2025), which states *'Thus, whilst the potential impacts of solar farms need to be taken into account in impact assessment, these papers lack key data and are not sufficiently robust to be able to draw detailed conclusions. This early research should be taken into account when assessing the impacts of solar farms, but the constraints of the research recognised in drawing any conclusions.'*. BSG Ecology have also provided a response to the study, which highlights the key issues and the need for

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Trust Good Practice Guidelines which recommend this height. As I am not an ecologist, I am unable to comment directly on any effect of having detectors at different heights for the efficiency of collecting data. However, the Applicant in REP2.048 *[page 232]*, and also identically in REP2.050 *[page 115]*, uses the fact that 1.27 metre height might be too low in the centre of the fields with solar panels, called 'open habitats' in the study, compared to 'boundary habitats'. The Applicant stresses that they will be creating better boundary habitats for bats along the sides of fields with solar PV. But the results in Table 1 of the paper, even if the results for the centre field detectors are discounted completely (because the	further studies to develop understanding around this matter (Ref 1.2).

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			detectors within panels might be unable to pick up bat activity at a different height), show that there are very marked reductions in bat activity for 6 out of 8 species along the boundary habitats where the height of the detectors and surroundings are equivalent, and so cannot be said to influence the comparison between the results. And for other species, there was no significant difference between activity in the centre of solar and non-solar PV fields. If the height of the detectors led to reduced detection in the centre of PV panel fields, it presumably would apply to all species. Green Hill Solar's ecologists discovered very rich populations of bats on all sites, and they concluded in the Bat Survey Summary of	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Appendix 9.6 in the GHS ES, that: 'The overall bat assemblage score for the Survey Area falls between 17 and 26, indicating an assemblage of between Regional to National importance'. In total, across all the Green Hill solar sites, 47% of bats recorded were Common Pipistrelle and 42% Soprano Pipistrelle. In this research study, at the boundary habitats, Common pipistrelle call sequences were reduced by more than a third, and Soprano Pipistrelle call sequences by more than two-thirds. So the main populations of bats across the proposed development are likely to be very significantly adversely affected by the presence of fields with solar PV. It is also worth noting that this study's data was collected in 2019 and	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			2020, on much smaller solar farm developments. The effects when translated to far larger continuous cover with taller and potential tracking panels is not likely to be less significant. However, as before, the onus is on the Applicant to show that the effects on bat populations shown is this study are NOT relevant to their proposed development.	
SGHS-092	Landscape and Visual Impact	Q2.13.7 Local Character Variation	SGHS does not consider that a suitable level of consideration has been given to local landscape character baseline variations on which the assessments have been based upon. For further information about the variations, and the implications of them not having been factored into the assessment, see SGHS's Landscape and Related Matters	The Applicant notes this comment. Please see response to SGHS-011 and SGHS-075. The LVIA **[APP-045]** contains detailed descriptions of the character of each individual Site Appendix 8.4: Landscape Character Area Descriptions **[APP-082]** contains details and extracts of published landscape character documents available within the Study Areas for the Scheme. Appendix 8.4 also includes interpretation and expansion of those characteristics relevant to the individual Sites, however a detailed identification of Landscape Character is contained within the LVIA **[APP-045]** within Section 8.6 Baseline Conditions. This is then further expanded upon, including the identification of landscape value, susceptibility and sensitivity within the assessment sheets for each of the varying Sites and Study Areas within

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			Statement paras. 3.1.14 – 3.1.64 *[REP{1}-195]*.	6.3.8.3A Environmental Statement Appendix 8.3 ES LVIA Assessment Sheets (Revision A) **[REP1-041]**.
SGHS-093	Landscape and Visual Impact	Q2.12.8 [sic] LVIA Methodology	SGHS does **not** consider that the applicant's response to these concerns in the Applicant's responses to Written Representations at Deadline 1 [REP2-048] satisfactorily address these issues. Please see SGHS's comments on REP2-048 SGHS Comments on Applicant's Responses to Written Representations at Deadline 1* for Deadline 3. The full technical reasons for the concerns are set out in **REP1-195**.	The Applicant is confident in their responses given within 8.1.13 Applicant Responses to Written representations **[REP2-048]**. The representative for SGHS raised their concerns at Issue Specific Hearing 2, please see **[REP3-075]** Written Summary of the Applicants Oral Submissions at Issue Specific Hearing 2 and Responses to Action Points.
SGHS-094	Socio-economics, Tourism and Recreation	Q2.16.10 Public access to the countryside and perceptions of safety	At present, as one walks along the Green Lane, there are two main options for escape. Firstly, there are wide entrances to each field on either side – some have gates, mostly they are not secured and can be opened, all would be relatively easy to climb	The Applicant refers to its response to Q2.16.8 in **Applicant's Response to Second Written Questions [REP3-074]**. Whilst hedgerows would be allowed to grow taller along the green lane and gaps filled in, this may increase a sense of enclosure from each side but would not reduce forward visibility for users, nor reduce the number of gates field access along the route. The Applicant acknowledges that fencing would stop movement east-west across fields.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			over, and some there is space to walk around the posts on one or both sides. Secondly, there are some gaps in the hedgerows, more obvious in winter, where it would be possible to get through. Once in any of the fields to the east, these are all open arable, and many connect easily through to the Kettering Road. On the west side, there is only one field's width to Newland Road, and all fields have field gates on the Newland Road as well. If the proposed development received consent, as far as I can determine from the Illustrative Layout Plan for Green Hill A, GH 6.4.4.1, APP – 193, these opportunities for escape would be affected in several ways. Firstly, sight lines along the Green Lane will be	The Applicant does however reaffirm the importance of the potential improvement to sense of safety on this route as a result of the permissive link from the Green Lane to Newland Road at the Broughton Road junction. This would create a continuous loop, which would provide an obvious and naturally surveyed means of escape for anyone using that route, in comparison to the dead-end arrangement at present.

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			shortened by the much higher vegetation on either side – this will both actually decrease any warning view but will also significantly increase the perception of the potential for danger. At present, there are mostly wide open views along and across the local countryside, particularly in winter, as must have been appreciated by the Inspectors on their ASI. Secondly, there would be no potential for escaping through gaps in the hedgerows, as these will have been reinforced, and new higher planting growing to around 4.5 metres. Thirdly, it is unclear whether it will still be possible to use the field gate access, but even if this is possible, once through any of the gates, there will be a continuous	

Reference	Theme	Issue	Comments/Issue Raised	Applicants Response
			fence along and between the fields, with options for escaping very limited to the far edges of only the fields at either end of the east side, i.e. AF18 and AF28, and on the west side, at the far ends around fields AF29 and AF17, but also in the middle perhaps, between fields AF14 and AF15. Therefore it is clear that the easy options of escape and running across fields will no longer be available. It is not only the logical potential for increased risk that is the problem, it is the perception of increased risk which is even more powerful.	

References

Ref 1.1 Solar Energy UK (2025) *Solar Habitat 2025*. Available at: https://solarenergyuk.org/resource/solar-habitat-2025/

Ref 1.2 BSG Ecology (2024) *Do solar farms affect foraging and commuting bats?* Available at: https://bsg-ecology.com/bats-and-solar-farms/

Appendix A

RESPONSE TO STOP GREEN HILL SOLAR

REP3-097, REP3-100 and REP3-101

Response to SGHS-020, SGHS-076, SGHS-080 and SGHS-086

January 2026

1 Introduction

1.1 Response SGHS-020, 076, 080 and 086 raise four principal issues, summarised as follows:

(i) the site selection process does not demonstrate that land of lower quality could not be used, and that BMV land has been avoided;

(ii) the practicalities of sheep grazing are raised in **[REP1-193]** – SGHS Written Representation – Appendices to Landscape and Related Matters Statement, Appendix CT-H;

(iii) it would be helpful if the Applicant could provide examples of solar farms that are grazed. The Defra figures do not relate to large-scale solar farms;

(iv) soil health is addressed in Appendices CT-E, CT-F and CT-G, and claims that the proposals will result in better land quality in the long-term are addressed in Appendix CT-F, esp F1.21-28.

1.2 This note is provided as an Appendix as it is too lengthy to provide within the tabular response format.

1.3 It follows the list of points made above.

2 Avoiding the Use of BMV

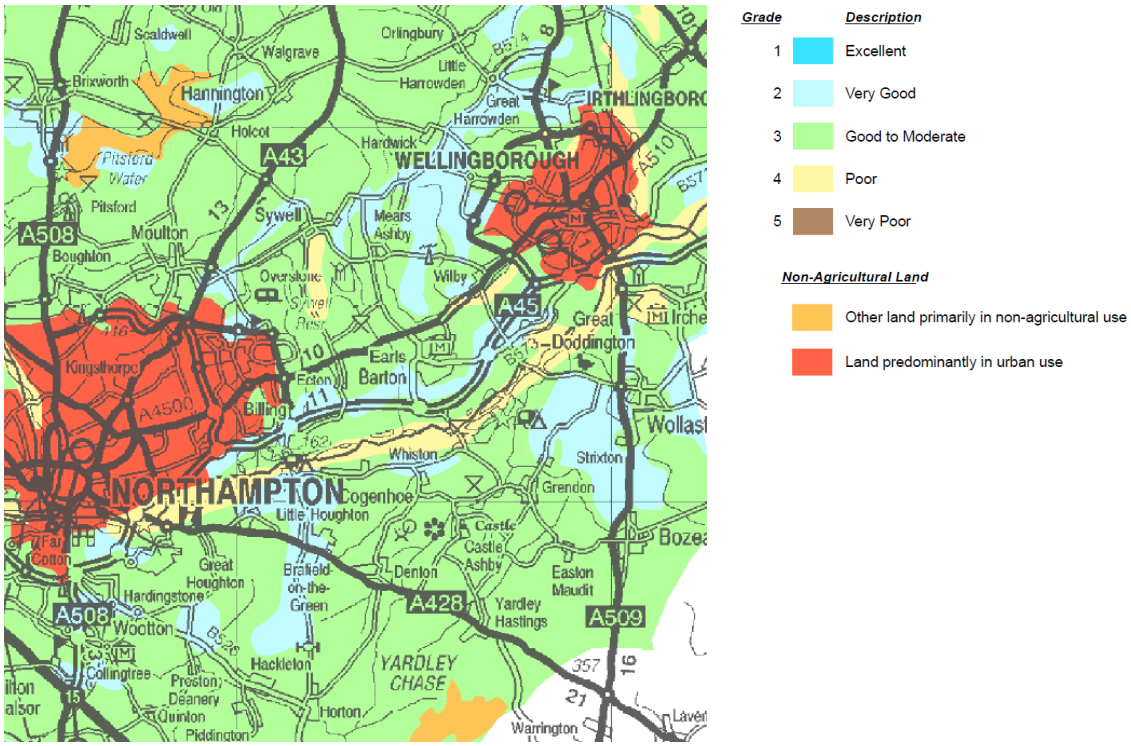
2.1 This response addresses two matters:

- factual information relating to the consideration of BMV, and survey work carried out, at the initial site selection process and subsequently;

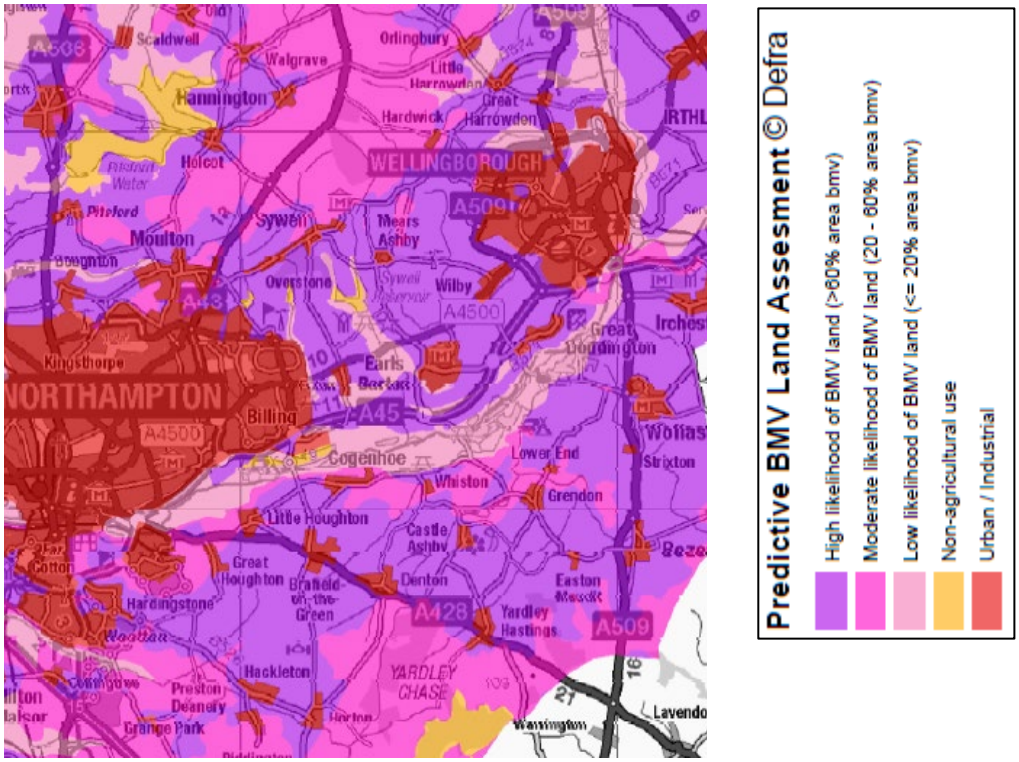
- whether in policy it is necessary to demonstrate that poorer quality land could not be used, and BMV land has been avoided.

2.2 **Site Selection.** The site selection process was described in the ES Chapters 5: Alternatives and Design Evolution [**APP-042**] and 20: Agricultural Circumstances [**APP-057**] and further land quality data was provided in the Farming Report [**APP-571**]. Inserts 1 and 2 from the Farming Report show the provisional ALC mapping, and the Likelihood of Best and Most Versatile (BMV) mapping, which identified mostly a 20-60% or >60% likelihood of BMV land locally.

Insert 1: Extract from the Provisional ALC



Insert 2: Extract from the Likelihood of BMV Map



2.3 The mapping did not, therefore, provide evidence of areas where the proportion of land required for the Scheme of BMV quality was likely to be low (i.e. it was mostly moderate or high likelihood). Smaller areas of low likelihood are generally likely to be affected by floodwater as they clearly follow main water courses.

2.4 Thereafter ALC surveys were completed for land identified as available and suitable, as reported in the ES Chapter 20 [**APP-057**]. Some areas of BMV, as identified within the Farming Report [**APP-571**], have not been used for solar panels, despite the insertion of solar panels not affecting the underlying ALC grade.

2.5 **Policy Response.** The SGHS summary of legal submissions [**REP3-100**] at para 69 states:

> "it cannot be said that it was not possible to avoid the "best and most versatile" agricultural land (which of course, includes Grade 3a but excludes Grade 3b). This is a serious breach of Government policy and is a factual flaw which clearly points to a refusal of the DCO for this scheme".

2.6 Government policy does not, and has historically not, required BMV land use to be avoided. National Policy Statements (NPS) EN-1 and EN-3 both seek to minimise effects on BMV, but do not seek to avoid the use of such land (see the Farming Report [**APP-571**] Chapter 2). NPS EN-3, paragraph 2.10.29 sets out that land type should not be a predominating

factor in determining the suitability of a site location. Where the use of agricultural land has been shown to be necessary, poorer quality land should be preferred, with BMV land avoided where possible. Paragraph 2.10.30 confirms that development of solar on BMV land is "not prohibited", but that the impacts of doing so should be considered.

2.7 Some recent NSIP decisions involving BMV land are set out in the Farming Report [**APP-571**] section 9.33. These decisions consider the likely loss of BMV, and then consider the land-use implications where it is accepted that land of BMV quality will not be lost or downgraded.

2.8 In negotiating the land for the sites with landowners, they were aware of variability in soils within their fields, ease of working particular fields etc, and this also influenced the land put forward for inclusion in the Scheme.

3 Future Grazing

3.1 SGHS [**REP1-193**], Appendix CT-H sets out the opinion of Carly Tinkler, as summarised in H1.8, that she does "does not agree that sheep-grazing is common practice, and entirely feasible". Her researches and analysis are set out, concluding in para H1.33 that "it is highly unlikely that agricultural use would continue during operation".

3.2 The reasons given are:

- visibility is blocked by the panels (H1.26);
- grass does not grow under panels (H1.27);
- financially viability (H1.31).

3.3 **Visibility.** Sheep and sheep dogs can see beneath the panels, as shown below, and grazing is possible even with lower panels. The Concept Design Parameters and Principles [**APP-561**] include a minimum ground clearance of 0.4m for both fixed and tracker panels. When tracker panels are not at full tilt the separation between the panel and the ground will be higher than 0.4m.

Insert 3: Manor Farm, Llanvapley, Monmouthshire

Insert 4: Grazing Low Panels, Aldermaston, Berks

3.4 **Grass Growth.** Grass grows below panels as shown in Inserts 3 and 4. Higher panels lead to better grass growth. With panels raised as proposed, access for sheep is unhindered, grass growth is good, and damage to panels (such as nibbling of cables) does not occur.

3.5 **Viability.** Financial viability of agricultural enterprises can vary depending upon a large number of considerations. Currently the sheep sector is performing well, with strong exports and prices. Based on available data over half of solar farms (on land forming part of a farm business) are grazed as described in section 4 (Agricultural Land use in the UK at 1 June 2025, Defra, December 2025).

4 Examples of Sheep Grazing

4.1 Inserts 3 and 4 show sheep grazing on sites in Monmouthshire and Berkshire. Five more examples are shown below.

Insert 5: North of Caernarfon

Insert 6: Peripheral Grazing, Axminster, Devon, showing field edges also grazed

Insert 7: Sheep Grazing, Eggington, Beds

Insert 8: Shuttleworth, Lancashire

Insert 9: Mill Farm, Lincolnshire

4.2 The Defra June Census figures, reported in the data set "Agricultural Land Use in the UK June 2025" (updated 17 December 2025) records land use for solar panels "not used for agricultural production" and "used for grazing or agricultural production". The statistics note that these figures are for "commercial holdings only", as this is a farm census, but exclude larger-scale solar farms where land is not part of an agricultural holding, ie land without other farming activity. The 2024 and 2025 figures (the only ones collected) are reproduced in the table below.

Land Use (in ha)	**2024**	**2025**
Used for agricultural production	3,620	4,937
Not used for agricultural production	3,683	4,563
Total	**7,303**	**9,500**

4.3 From this data set, which is the only census recording this data so far as we are aware, in 2025 some 52% of solar panels areas were being grazed at 1 June.

5 Soil Health and Land Quality

5.1 Soils will benefit from being rested from intensive arable use. This is described in the ES Chapter 20.8 [**APP-057**] and the Farming Report section 7 [**APP-571**].

5.2 SGHS provide commentary in [**REP1-193**] Appendices CT-E, CT-F and CT-G. The principal matters raised are:

(i) soil pollution (CT 11.9 et seq);
(ii) construction and decommissioning compaction (CT E1.26 et seq and F1.9 et seq);
(iii) soil erosion (CT E1.46 et seq);
(iv) "resting" soils (CT F1.21 et seq).

5.3 **Soil Pollution.** There is no evidence that solar panels are creating pollution in the land on which they are located. SGHS provides no evidence to support this claim.

5.4 **Construction Compaction.** The machinery involved in construction is generally small, as set out in the Farming Report sections 4, 5 and 6 [**APP-571**]. Access tracks are normally provided early in the construction process and provide haul routes for delivery vehicles. Multiple decisions are referenced where it has been concluded that land quality will not be adversely affected, subject to good soil management during construction and decommissioning. An outline Soil Management Plan is included with the application [**APP-550**].

5.5 **Soil Erosion.** CT E1.50 [**REP1-193**] provides photographs of bare soils in what appears to be arid conditions to illustrate the claim of erosion. The following photograph (and those provided earlier) show ground mounted solar panels in the UK, and it can be seen that water does not just fall off the lower edge, but also falls off between panels. Erosion does not occur on sites managed with grass. It can be seen where water run-off is concentrated (below the panels and the central gap), but whilst this can be seen in winter grass growth, there is no erosion or channeling.

Insert 8: Woolpots Solar Farm, North Yorkshire

5.6 **Resting.** The objector's main arguments seem to be that resting is only a temporary benefit, and that there will be long-term declines in fertility. It is stated that no evidence of benefits to soils is provided in the Farming Report (se CT F1.21). That is not correct: a number of scientific analyses are presented in section 7 of the Farming Report [**APP-571**] including studies and reports by the Environmental Agency, the UK Food Security Report 2021 and the British Society of Soil Science, and quotations from appeals and NSIP decisions. The benefits to soil are clearly identified in the research reported.

5.7 **Land Quality.** Agricultural land quality is not adversely affected by the construction and decommissioning phases. Soil health and quality will improve, but that is distinct from land quality as measured under the ALC.

5.8 However, as noted in the ES Chapter 20 at 20.8.21 [**APP-057**] "the potential increased soil organic matter may convert some mineral topsoil into organic topsoil potentially increasing ALC grades according to the ALC guidelines". To respond to the SGHS objections, this is further explained as follows.

5.9 Paragraph 20.8.18 of ES Chapter 20 [**APP-057**] states the potential benefit of conversion of arable land to grassland and its impact on land quality. The conversion of land currently under arable production to grassland (land between and under the solar panels) during the operational phase has potential benefits in relation to soil health. Cessation of cultivation will remove disturbance effects on the soils and, along with the grassland vegetation, will likely result in an increase in soil organic carbon, better soil structure, increased infiltration and enhanced soil microbial populations. This is supported by research from the British Society of Soil Science (which showed that conversion of tillage land to permanent pasture had soil organic carbon benefits) (see references in the Farming Report [**APP-571**] section 7.6 (vi)). As such, there would be a potential beneficial impact on soils and agricultural land although it should be noted the extent of benefits will depend on the actual land use now and during operation. In accordance with Defra's Agricultural Land Classification guidelines, the potentially increased soil organic matter may convert some mineral topsoil into organic topsoil (6-10% organic matter), therefore this would result in a potentially increased ALC grade for some soils.

5.10 The topsoil with increased organic matter would not be lost during decommissioning as soils would be handled in compliance with a Soil Management Plan to protect soil health and quality.

5.11 The tables below (from the ALC Guidelines) demonstrate the rationale as Table 7 shows a higher grade of land quality where soils are organic.

Table 6: Grade according to soil wetness – mineral soils

Wetness class	Texture[1] of the top 25 cm	Field Capacity Days				
		<126	126-150	151-175	176-225	>225
I	S[2] LS[3] SL SZL	1	1	1	1	2
	ZL MZCL MCL SCL	1	1	1	2	3a
	HZCL HCL	2	2	2	3a	3b
	SC ZC C	3a(2)	3a(2)	3a	3b	3b
II	S[2] LS[3] SL SZL	1	1	1	2	3a
	ZL MZCL MCL SCL	2	2	2	3a	3b
	HZCL HCL	3a(2)	3a(2)	3a	3a	3b
	SC ZC C	3a(2)	3b(3a)	3b	3b	3b
III	S[2] LS SL SZL	2	2	2	3a	3b
	ZL MZCL MCL SCL	3a(2)	3a(2)	3a	3a	3b
	HZCL HCL	3b(3a)	3b(3a)	3b	3b	4
	SC ZC C	3b(3a)	3b(3a)	3b	4	4

Table 7: Grade according to soil wetness – organic mineral and peaty' soils

Wetness class	Texture of the top 25 cm	Field Capacity Days			
		<126	126-175	175-225	>225
I	PTY	1	1	1	*
	S LS SL SZL	1	1	1	*
	ZL MZCL MCL SCL	1	1	2	*
	HZCL HCL	1	2	3a	*
	SC ZC C	1	2	3b	*
II	PTY	1	1	1	*
	S LS SL SZL	1	1	2	*
	ZL MZCL MCL SCL	1	1	3a	*
	HZCL HCL	2	2	3a	*
	SC ZC C	2	3a	3b	*
III	PTY	2	2	2	*
	S LS SL SZL	2	2	3a	*
	ZL MZCL MCL SCL	2	2	3a	*
	HZCL HCL	3a	3a	3b	*
	SC ZC C	3a	3a	4	*

5.12 Therefore there is some potential for land quality to be upgraded, however as this cannot be measured or estimated at this stage it is not recorded as a benefit in the ES Chapter 20 [**APP-057**].