LIME DOWN SOLAR PROJECT

WRITTEN REPRESENTATIONS
STOP LIME DOWN

Prepared for Deadline 1

May 2026

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1. Introduction

1.1. Background

1.1.1. This representation and its appendixes comprise the Written Representation of Stop Lime Down ("SLD") against the application by Lime Down Solar Park Ltd ("the Applicant") for a development consent order ("DCO") for the Lime Down Solar Project ("the Scheme"). It is made pursuant to s.90 of the Planning Act 2008 ("PA 2008") It expands and supplements the Relevant Representation made by SLD **[RR-4495]**, which should be read alongside it.

1.1.2. SLD are a non-profit community campaign group comprised of local residents of Wiltshire and South Gloucestershire who oppose the Scheme. SLD operates through SLD Wiltshire Limited, a company limited by guarantee (company number 16326693). It is supported by both legal advisors, and a number of experts in different fields, that have assisted in the production of this Written Representation.

1.1.3. SLD supports renewable energy in principle, but consider that this Scheme in the proposed location causes too much harm to local communities and the environment. SLD welcomes the opportunity to submit this Written Representation to assist the Examining Authority ("ExA") in its examination of the Scheme. SLD continue to encourage the ExA to make a recommendation to the Secretary of State for Energy Security and Net Zero ("SoS") that development consent not be granted for the Scheme.

1.1.4. SLD has already taken part at the Preliminary Meeting and Issue Specific Hearing 1. It will continue to take part throughout the process to ensure that community concerns are clearly heard and properly considered, so that local voices and knowledge carry real weight in decisions affecting their future. That is particularly important given the unprecedented number of Relevant Representations submitted by Interested Parties in the Examination. SLD are grateful for the opportunity to take up this role.

1.2. Structure of this Written Representation

1.2.1. This Written Representation is produced with a number of Appendices detailed in the table below. These Appendices comprise the main evidence base for the Written Representation, and are where most of the detail of SLD's case is to be found. Many of these Appendices are either directly produced by, or produced with the assistance of, SLD's legal advisors and experts.

1.2.2. This Written Representation comprises a covering submission for these Appendices, and makes extensive cross-references to them. As a result, the Written Representation does not attempt to repeat the detail of the Appendices, but rather to collate headline points and to provide an overarching position statement. In addition, the Planning Report appended as Appendix A (produced by Marrons) similarly has an overview function, and considers the planning balance for the Scheme.

1.2.3. The Written Representation also provides SLD's current comments on the draft Development Consent Order. SLD will continue to review the Development Consent Order and provide comments to the Applicant and the ExA as appropriate.

1.2.4. Appendix Z to this Written Representation provides an interactive layered map which SLD has used to assist its understanding of how various environmental effects overlap. An explanatory note of how to use the map is at Annex 1 at the end of this document. SLD hope it is of assistance to parties and the ExA, and will update it over the course of the Examination.

1.2.5. Alongside this Written Representation, SLD is engaging with the Applicant to produce a Statement of Common Ground (as was explored at the Preliminary Meeting, and ultimately directed by the ExA). As part of that process SLD expect that it will provide comments on the outline plans proposed within the application

documentation on a without prejudice basis. As appropriate, and in light of the Applicant's response to this Written Representation and Local Impact Report, SLD will progress those comments (noting that a number of comments on those outline plans are already made in the Appendices).

1.2.6. SLD welcome any questions that the ExA, or any other party (including the Applicant), may have about this Written Representation. SLD will continue to take steps assist the ExA, and advance its case, throughout the remainder of the Examination.

1.3. Appendices

1.3.1. This Written Representation is accompanied by the following reports and papers:

Issue	Author	Report/paper	Appendix
Planning	Marrons (Sandra Ford, Joshua Mellor)	Planning Report	A
Landscape	Carly Tinkler	Landscape and Visual Impact Report	B
Heritage	Marrons (Lucy Nicholson, Tom Linington)	Heritage and Archaeology Report	C
Traffic and Transport	Railton TPC Ltd (Bruce Bamber)	Transport Report	D
Ecology	Nicholas Valori	Ecology Report	E
Flooding	Prof Richard Skeffington	Critique of Flood Risk Assessment	F1
		Runoff from Solar Panels at Lime Down	F2
		Observations of Flood Extent above Corston	F3

		Flood Risk at Lime Down due to Reduced Evaporation	F4
Glint and Glare	Straten Consulting Services Ltd (John van Hoogstraten)	Glint and Glare Report	G
Noise/Vibration Impacts	Clark Saunders Associates (Ian MacArthur)	Acoustic Report	H
Health	Claire Maxwell	Health Effects Paper	I1
	Prof Richard Skeffington and Professor Peter Dobson	Air Quality	I2
Climate	University of Derby (Prof Chris Sansom, Dr. Heather Almond, Zaharaddeen Hussaini)	Climate Change Report	J1
	Prof Richard Skeffinton	Rainfall Amounts used in the Climate Change Risk Review at Lime Down	J2
Soil and Agricultural Land	Sam Franklin	Soils and Agricultural Impact Report	K1
	Cranfield Environment and Agrifood	Soil Site Report	K2
Site Selection and Alternatives	Sir Mike Pitt	Site Selections and Alternatives Paper	L
PRoWs Survey	SLD	Public Right of Way Survey	Y

Map	James Verschoyle	Combined Baseline and Project Information Plan	Z

1.4. Administrative matters

1.4.1. SLD note that the Applicant's draft agenda for the accompanied site visit is provided at **[PDB-005]**. Some, but not all, of SLD's suggestions have been accepted. For those which were not accepted, this was primarily because of them being accessible to the public. SLD invite the ExA to attend those viewpoints (insofar as they have not already done so as part of their unaccompanied site visit **[EV1-001]**).

1.4.2. SLD will seek to speak on topics contained in its Written Representation at OFH2. It will continue to participate at all ISHs and otherwise assist the ExA insofar as it can do.

1.4.3. This Written Representation has not been produced with the use of AI. Expert reports address the use of AI where appropriate.

2. Site Selection and Alternatives

2.1. Introduction

2.1.1. As the remainder of this Written Representation addresses, the location chosen for the Scheme is a sensitive one. Many of the harms, and significant adverse effects identified, come from the starting point of a failure to identify that sensitivity. SLD are of the view that there are critical flaws within the Applicant's approach which make it defective and which weigh against the grant of development consent. Importantly, it demonstrates a failure by the Applicant to meet the directive to "avoid", the first key step in the mitigation hierarchy.

2.1.2. SLD has produced a report (**Appendix L**) addressing the process of site selection with the input of its experts addressing the effects of the Scheme, and with the input of its legal advisors. The report has been authored by Sir Michael Pitt. References in this section to pages or paragraph numbers are to that report, unless otherwise specified.

2.2. Policy and law

2.2.1. As the report addresses from **[2/§5]**, the requirement to consider alternatives is set out in NPS EN-1 but arises out of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("EIA Regulations"). This provides the requirement on the Applicant to (in the words of para 4.3.15 of NPS EN-1) include "information about the reasonable alternatives they have studied" and to give "an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility".

2.2.2. It is an important requirement of the EIA Regulations that the Environmental Statement be adequate. Adequacy is a threshold requirement before one addresses the question of the decision-maker reaching a conclusion on the information contained in the Environmental Statement. To conclude the

Environmental Statement is adequate in law, the information contained therein must be such that to accept it would not disclose a demonstrable flaw of logic or otherwise be irrational. That is a requirement applying to the assessment of alternatives contained within the Environmental Statement **[4/§9]**.

2.2.3. NPS EN-1 goes on to explain that a consideration of alternatives "should be carried out in a proportionate manner" **[4/§11]**. The significant scale of the Scheme in this case is noted in that regard.

2.2.4. The Applicant places particular reliance on para 4.3.24 of NPS EN-1. That paragraph explains that development consent should not be refused "simply because fewer adverse impacts would result from developing similar infrastructure on another site" **[4/§12]**. However, the word "simply" is important; it recognises that the existence of an alternative site may become a reason to refuse in combination with other aspects of policy and law. That includes where there is a defect in the assessment such that the Environmental Statement is not adequate, or where there has been a failure to comply with the mitigation hierarchy, or where alternatives are taken into account in the overall planning balance **[5/§14]**.

2.2.5. The Applicant has recognised that the s.85 Countryside and Rights of Way Act 2000 ("CROW 2000") duty to "seek to further the purpose of conserving and enhancing the natural beauty of" National Landscapes is relevant to site selection and alternatives. SLD not only agrees, but considers the Applicant's approach underplays how important s.85 is in requiring the Applicant to "avoid" harms pursuant to the mitigation hierarchy. Importantly, and as is emphasised elsewhere in this Written Representation, the requirement to "avoid" harms comes before the application of the CNP Infrastructure presumption in NPS EN-1. A failure of avoidance means the test in para 4.2.14 of NPS EN-1 is not met, and the CNP Infrastructure presumption does not apply **[6/§16]**.

2.3. Defects in methodology

2.3.1. Two key errors in the methodology adopted by the Applicant have been identified by SLD. These both go to the sufficiency of the information contained in the alternative sites assessment (which cannot be accepted on a proper exercise of planning judgment), and indicate that the Applicant has failed at this stage in properly avoiding environmental effects **[9/§20]**.

2.3.2. The first error is that the Applicant has used a selection process for its Potential Development Areas (**PDAs**) which has failed to apply consistent criteria when identifying those Areas. The overall effect is that PDAs identified earlier in the process were selected against more constrained parameters, meaning they were smaller than they would have been if they were identified later in the process (and selected against more relaxed parameters) **[9/§21]**. This failure means that PDAs 1-4, identified earlier in the process (and, therefore, considered more acceptable as a starting point), were never appropriately assessed with the benefit of the loosened selection parameters. They were not identified on a like-for-like basis **[11/§22-23]**. Similarly, PDAs identified at different stages of the process were identified as two separate areas and considered separately (rather than together) **[12/§26]**. This is a clear logical failing in the assessment **[12/§27]**.

2.3.3. The second error is that the Applicant has failed to systematically consider the combination parts of PDAs or entire PDAs as part of the selection process **[12/§28]**. The significance of this failing is immediately apparent if PDAs 5, 6 and 11 are considered. These are proximate PDAs giving a combined 1,482ha and ample opportunity for mitigation (around 400ha) of the limited number of problematic environmental effects identified by the Applicant **[14/§29]**. The Applicant clearly understood the feasibility and relevance of the combination of PDAs but failed to conduct this analysis. That is a significant flaw in the analysis **[14/§30]**. Given the limited number of PDAs, and the context of the Scheme, this would not only have been proportionate to consider but is material to assessing the adequacy of the assessment **[15/§32]**.

2.4. Defects in the SSAR assessment

2.4.1. Aside from those methodological concerns, SLD disagree with the outcome of the alternative sites assessment itself **[15/§33]**.

2.4.2. SLD note the Applicant's reliance in its assessment on the use of land agents and the proffering of "entire land parcels suggested by land agents" at Stage 5 of the analysis. SLD considers that selection on that basis puts ownership at the forefront of the analysis without having regard to the wide range of unconstrained land at Stage 5. Practicalities of delivery are not a substitute for avoidance and mitigation of environmental effects **[15/§35]**.

2.4.3. In the report, SLD sets out an analysis of the process conducted by the Applicant. By comparing **[Appendix B, 26]** and **[Appendix C, 27**] to that report, it is apparent that the Applicant has substantially overestimated the perceived merits of the PDA which became the Scheme. In particular: (1) landscape and visual was downgraded as a result of impacts on the Cotswolds National Landscape; (2) land use was downgraded to amber to reflect the location in the Cotswolds, the various uses around the fragmented development; (3) access for construction traffic downgraded to red to reflect routing along inappropriate roads and through the National Landscape; (4) grid connection downgraded from amber to red to reflect the inappropriate and damaging length of the cable; and, (5) site size downgraded due to the Applicant's recognition that it was smaller than the parameter it chose to apply **[16/§37]**.

2.4.4. Assessed either by reference to the number of red scores (3), or by reference to the overall weighted score (18 – note lower is worse and the range is 18-22), the PDA for the Scheme is the least appropriate site for development.

2.5. Conclusion

2.5.1. SLD has significant concerns about the approach to the assessment of alternatives in this case. There are demonstrable flaws in logic in the methodology of the assessment, and the omission of obviously material considerations. There is also a clear failure to properly to assess the environmental effects of PDA 10, and as a result a selection of a manifestly inappropriate site for the proposed development. These errors underpin many of the significant negative environmental effects of the proposed development.

3. Landscape and Visual Impact

3.1. Introduction

3.1.1. SLD consider landscape and visual impact a critical issue in this Examination. For those who live in the area, the Scheme will be extremely impactful and convert what is a pleasant rural landscape with one which is industrialised and devoted to energy generation. The Order Limits abut the National Landscape, an area with the highest policy protection subject to the s.85 CROW 2000 duty, and is itself crossed by many PRoWs and routes enjoyed by walkers, cyclists and equestrians. The Scheme is placed close to dwellings and surrounds villages, giving the effect that the landscape has changed in most if not all directions. SLD consider the Scheme to be particularly harmful when properly assessed, and consider the Applicant to have considerably underestimated how significant and damaging the Scheme will be in this location.

3.1.2. On behalf of SLD, a landscape and visual impact report has been produced by Carly Tinkler BA, CMLI, FRSA, MIALE (**Appendix B**). Where references are made to pages or paragraphs, they are to that report unless otherwise stated. Alongside giving a detailed review of the Scheme and its impact, the report also includes a number of detailed queries which SLD invites the Applicant to consider.

3.2. Policy

3.2.1. Section 5.10 of NPS EN-1 addresses landscape and visual issues. The policy recognises that “Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape” (para 5.10.5), but requires schemes to be “designed carefully, taking account of the potential impact on the landscape” (para 5.10.6). It notes that, having regard to siting and constraints, “the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate” (para 5.10.6).

3.2.2. The NPS recognises that National Landscapes have the highest status of protection, and schemes should be "designed sensitively given the various siting, operational, and other relevant constraints" (para 5.10.7). The policy recognises the duty to "further the purposes of nationally designated landscapes", and that this applies in the setting. The SoS should be "satisfied that measures which seek to further the purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development" (para 5.10.8).

3.2.3. Locally valued landscapes are also recognised, but "should not be used in themselves to refuse consent, as this may unduly restrict acceptable development" (para 5.10.12). the words "in themselves" recognises that such harm to locally valued landscape may, in combination with other factors, still be enough.

3.2.4. As to visual effects, it is likewise recognised that all proposed energy infrastructure "is likely to have visual effects for many receptors" and that the SoS will "judge whether the visual effects, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project".

3.2.5. Applicants are required to carry out an Land and Visual Impact Assessment ("**LVIA**"), including a cumulative effects assessment (para 5.10.16). They are enjoined to "consider landscape and visual matters in the early stages of siting and design" when site choice and design principles are being picked. This is because this contributes to showing how "negative effects have been minimised and opportunities for creating positive benefits or enhancements have been recognised and incorporated" (para 5.10.19). A similar point is made in NPS EN-3 at para 2.10.96. This should include assessments relevant to National Landscapes when present (para 5.10.20), and should look at effects from "noise and light pollution, and other emissions" (para 5.10.22). The NPS suggests that the SoS may be assisted by being directed to other permitting decisions of a similar magnitude of impact when assessing a project (para 5.10.25).

3.2.6. The policy recognises that reducing scale can help mitigate effects. However, it notes that reducing scale or amending design may result in significant operational constraints and reduction in function. The policy recognises, however, that there may be exceptional circumstances where mitigation could have a very significant benefit and "warrant a small reduction in function". Where that is the case, the SoS may decide "that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh that marginal loss of function" (para 5.10.26).

3.2.7. Of mitigation, adverse effects may be minimised through appropriate siting within the development site and wider setting, and also various choices of detailed design, and sympathetic landscaping and management of immediate surroundings (para 5.10.27).

3.2.8. For Secretary of State decision-making, key in this case is para 5.10.34 which addresses setting effects of NSIPs on National Landscapes. The duty to further the purposes applies to these areas, and the "aim should be to avoid harming the purposes of designation or to minimise adverse effects on designated landscapes, and such projects should be designed sensitively given the various siting, operational and other relevant constraints". The policy recognises that "The fact that a proposed project will be visible from a designated area should not in itself be a reason for the Secretary of State to refuse consent". That is clearly the case; however, visibility and other effects which have a significant harmful effect on the National Landscape and its setting may well give such a reason.

3.2.9. The policy notes that projects of this scale "will often be visible across a very wide area" and that the SoS should judge "whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project" (para 5.10.35). When reaching a judgment, the SoS should "consider whether any adverse impact is temporary" and whether the impact "will be capable of being reversed in a timescale that the Secretary of State considers reasonable" (para 5.10.36).

3.2.10. The SoS is directed to consider whether the project has "been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation" (para 5.10.37).

3.2.11. NPS EN-3 recognises that, due to their scale, solar farms will "inevitably have impacts, particularly if sited in rural areas" (para 2.10.17). They have a significant zone of influence, so visual amenity and glint and glare may be particular impacts (para 2.10.27). That zone of influence is also recognised in para 2.10.94.

3.2.12. The policy goes on to recognise ground-mounted solar may have their zone of visual affect appropriately minimised with effective screening and appropriate land topography (para 2.10.95). Applicants are required to follow "good design" and to "direct considerable effort towards minimising the landscape and visual impact of solar PV arrays" (para 2.10.98).

3.2.13. Para 2.10.157 recognises that the SoS will consider landscape and visual impact of a scheme, taking account of sensitive visual receptors, the effect of development on the landscape character, together with the possible cumulative effects. This para again notes that National Landscapes "are afforded extra protection due to their statutory purpose".

3.2.14. NPS EN-3 also has specific policy on effects on PRoWs. Applicants are "encouraged to design the layout and appearance of the site to ensure continued recreational use of public rights of way where possible during construction, and in particular during operation of the site" (para 2.10.42). Where "possible" they are required to "minimise the visual impacts of the development for those using existing public rights of way, considering the impact this may have on any other visual amenities in the surrounding landscape" (para 2.10.43.) Footnote 89 recognises that screening may "impact on the ability of users to appreciate the surrounding landscapes". Applicants are also directed to "consider and maximise

opportunities to facilitate enhancement to the public rights of way" and inclusion of new public access (para 2.10.44).

3.3. LVIA Method and Process

3.3.1. The report identifies a number of methodological flaws in the LVIA conducted by the Applicant. Among other things, it notes that the LVIA does not factor in the notable localised variations in character which occur across the study area, omitting important value and susceptibility factors. There is also a distinct concern, present throughout the report, that the Applicant has placed an over-reliance on existing and proposed vegetation screening, which leads to a failure to address the reasonable worst case. That screening will itself give rise to adverse landscape and visual effects **[8/§3.1.3]**.

3.3.2. A key feature of this section of the report is the identification of a conflation of landscape "fabric" and "overall character" **[9/§3.3.7]**. While "fabric" contributes to a landscape's overall character, it is not interchangeable **[10/§3.3.14]**. This would appear to be a departure from GLVIA3, and also leads to the underestimation of the adverse effect of the Scheme on the sites' overall character; that is because "fabric" is only one of many aspects of overall character **[10/§3.3.18]**. In addition, another running issue through the LVIA identified in the report for SLD is that the LVIA often identifies benefit because it double counts landscape/visual enhancements **[10/§3.3.19]**. That is because of a conflation of measures to mitigate and measures to enhance (and, even then, both types of measure can have a significant adverse effect – for example, where the proposal is uncharacteristic) **[11/§3.3.20]**. The report's position, which appears to now align with the Applicant, is that the Scheme would result in significant adverse direct effects on the overall character of the sites **[11/§3.3.21]**.

3.3.3. Section 3.4 identifies various technical matters with the LVIA conducted by the Applicant **[11/§3.4.1]**. In this section there is disagreement with the criteria identified by the Applicant for assessing landscape sensitivity and susceptibility,

and also visual receptor susceptibility. The result is an underestimation of sensitivity for both landscapes **[13/§3.4.17]** and also visual receptors **[13/§3.4.21]**. The report also doubts that a four-point scale for levels of value, susceptibility and sensitivity is insufficiently granular, and imbalanced in that moderate is not identified as the centre of the scale **[13/§3.4.26]**.

3.3.4. Finally, this part of the report identifies a failure to identify notable localised variations in landscape character, leading to a broad-brush approach which misses areas of high sensitivity within wider moderate sensitivity landscapes **[15/§3.4.30]**. This results in a failure identify the diversity and complexity of the receiving landscape **[15/§3.4.40]**.

3.4. Landscape Character Effects: Introduction

3.4.1. It is widely recognised that effects on character should be given as much consideration as effects on views, if not more. Indeed, when considering what is landscape, only part of the consideration is sight **[16/§4.5]**. A key feature identified in the report is the inadequate consideration of non-visual effects in the LVIA as part of the assessment **[17/§4.11]**.

3.5. Landscape and Visual Sensitivity

3.5.1. The report considers that, in terms of overall character, the LVIA only assesses the solar sites' levels of value. Levels of susceptibility to change and (thus) sensitivity are not stated **[20/§5.1.3]**. As a result, the report assumes that the sensitivity for this in the LVIA is that identified for the Scheme's host LCAs **[20/§5.1.4]**.

3.5.2. An important feature of the use of LCAs is that the landscapes in the study area do not all conform to the host landscape areas, and the LVIA does not factor this variation into its judgment about sensitivity levels. This means sensitivity has been set in a homogenous way and leads to misidentification of sensitivity (and

thus effects) **[21/§5.1.13]**. This approach has, for example, set landscapes within 1km and 2km of the Order Limits to a sensitivity of High to Medium value, Medium susceptibility to change, and thus High to Medium sensitivity **[21/§5.1.14]**. Even if the LVIA does recognise it, this is the judgment made notwithstanding that part of those areas is within the Cotswolds National Landscape itself **[21/§5.1.15]**.

3.5.3. A common theme in the LVIA is the identification of sensitivity of landscapes by using a broad-brush averaging approach. On some occasions, this leads to areas not within the National Landscape being assessed as having the same sensitivity as the CNL **[21/§§5.1.17-5.1.20]**. However, in others, it leads to an underestimation of sensitivity, including (apparently) in relation to the CNL **[21-22/§§5.1.20-5.1.21]**. The conclusion that all landscape within 2km of the Order Limits are of High-Medium sensitivity is clearly wrong **[22/§5.1.23]**, and (among other things) underassesses the CNL **[22/§5.1.22]**. This same effect is also identified in respect of NCA 117 **[22/§5.1.24]**.

3.5.4. Overall, the Scheme's host (North Wiltshire) LCA 8 is highly susceptible to the form of change proposed here. As identified in the North Wiltshire assessment, the whole area is of an essentially tranquil and pastoral character **[25/§5.1.37]**. The report notes that the Scheme, a large-scale industrial installation, would be at odds with that character **[25/§5.1.38]**. Wiltshire Council's own Renewable Energy Study Landscape Sensitivity Assessment Final Report from 2023 identified that for the host (Wiltshire) LCA 16 that "Landscape sensitivity to these very large schemes would be characterised as 'high' regardless of location" **[25/§5.1.40]**.

3.5.5. Overall, using a five point scale for granularity, the report identifies that the CNL would be Very High landscape value susceptibility and sensitivity, with then the sensitivity falling across the site from west to east (with landscape closest to the CNL being high sensitivity, and those beyond either High-Medium or Medium) **[25/§5.1.43]**. For the remainder of the report reviewing the LVIA however, High was assumed for the CNL and its setting **[25/§5.1.44]**.

3.5.6. As to visual receptor sensitivity, the report begins by noting that it is unclear whether the LVIA has assessed visual receptor sensitivity based on the specific changes proposed (which would be an error) **[26/§5.2.3]**. It also notes that the LVIA's criteria for visual susceptibility conflates criteria related to landscape/visual value (which is itself an error) **[26/§5.2.4]**. It is, ultimately, the occupation or activity of people experiencing the view at a given location which determines susceptibility **[27/§5.2.6]**. The report concludes that the LVIA underestimates visual effects as a result **[27/§5.2.9]**, and that a proper approach would be to take a reasonable worst-case and apply a High sensitivity for visual receptors who are travelling to and from the CNL through landscapes of High sensitivity (with the main purpose of such receptors being to enjoy views and experiences) **[27/§5.2.10]**.

3.6. Cause and Nature of Effects

3.6.1. The report notes the importance of identifying the cause and nature of effects so that there can be a proper approach to design adjustments, mitigation and requirements **[28/§6.2.3]**. Such effects should be considered in detail and with a particular focus on in-combination effects **[28/§6.2.2]**. The report identifies a large number of potential effects at all phases of the Scheme beginning at **[28/§6.2.4]**.

3.6.2. A key consideration in relation to the Scheme is effects on tranquillity. Not only is it one of the CNL's Special Qualities, but much of the remainder of the study area also benefits from high levels of tranquillity **[30/§6.2.7]**. This is not merely a question of quiet areas, but includes the absence of unwanted intrusions, the presence of nature, feeling safe, visually pleasing surroundings, and a relaxing atmosphere **[30-31/§§6.2.12-6.2.18]**.

3.7. Mitigation and Enhancement

3.7.1. A key feature and error of the LVIA is the double counting of mitigation as enhancement. This is because of the incorrect identification of proposed mitigation measures as enhancement measures **[32/§7.2.1]** (something GLVIA3 specifically warns against **[32/§7.2.2]**). A key example of this is tree and hedgerow planting which is required mitigation to screen the Scheme **[32/§§7.2.5-7.2.6]**.

3.7.2. Part of the difficulty is that the LVIA is often unclear what a specific measure is identified as **[33/§7.2.9]**. However, this issue goes beyond this. The Applicant has maintained that measures can be both mitigation and enhancement at the same time **[33/§7.2.17]**, and there are various examples of it in the Commitments Register for the Scheme **[34/§7.2.23]**. This has important effects of overestimating benefits and underestimating harms. For example, the report disagrees with the LVIA conclusion of beneficial effects on the setting of the CNL for (among other reasons) the fact that this relies upon such double counting **[34/§7.2.20]**. The double counted aspects of the mitigation measures are the very things relied upon (erroneously) as furthering the CNL purpose **[35/§7.2.26]**. However, the difficulty in identifying whether a measure is mitigation or enhancement goes far beyond this **[35/§7.3.5]**.

3.7.3. In respect of double counting, it is noted that the Applicant points to para 5.10.5 of NPS EN-1, and the direction that "there may also be beneficial landscape character impacts arising from mitigation". However, as is apparent from GLVIA3, it is a mistake to double count mitigation as enhancement. Thus, it appears likely what para 5.10.5 is getting at is the distinct issue of when mitigation no longer becomes necessary but remains in situ (i.e. on decommissioning). The report considers this does not answer the general double counting point **[34/§7.2.18]**

3.7.4. A further feature of the mitigation proposed is that new landscape "fabric" planting (such as hedges and woodlands) would itself give rise to adverse landscape and visual effects **[36/§7.4.1]**. For example, the use of 4.5m tall hedges, which are very tall and generally uncharacteristic of the area **[36/§7.4.4]**. Such hedges also block various open views which produces a high level of

adverse visual effect (something that the LVIA fails to identify) **[40/§7.4.6]**. This is implicitly recognised in the limitation of hedgerows bordering the CNL to 1.5m **[40/§7.4.7]**.

3.7.5. The report also notes an over-reliance on vegetation to screen views, and recognises that this is not a precautious approach and relies upon the unlikely scenario that all such screening will be effective **[42/§7.5.3]**. Rather, a reasonable worst case should have been adopted in assessing effects **[42/§7.5.4]**. That is particularly so given the recognition (by Wiltshire Council) of significant pests and diseases for such screening vegetation in the area **[43/§7.5.9]**.

3.8. Landscape Effects

3.8.1. As a starting point, the Applicant identifies significant adverse effects on landscape character in the form of direct effects on landscapes within the Order Limits during construction operation and decommissioning, including on the setting of the CNL. The significant adverse direct effects arising within the Order limits would cause significant adverse indirect effects on landscapes within the CNL, and on the CNL's special qualities **[46/§8.1.3]**. Further, the LVIA concludes that not all views can be screened, so many public and private viewpoint receptors would experience significant adverse effects on view during construction operation and decommissioning which could not be mitigated **[46/§8.1.4]**. The report agrees with these conclusions but goes further on the predicted levels identified **[46/§§8.1.5-8.1.6]**.

3.8.2. The report also notes the LVIA's approach to "temporary" effects. While the LVIA concludes such effects (on the proposed construction route running through the CNL) would not be significant, the report disagrees. That an effect is "short-term" does not change that, through the duration of the works, the effect would be significant **[46/§8.1.7]**. It is for this reason it would seem that the CNL Board object to construction traffic being routed through the CNL **[46/§8.1.7]**.

3.8.3. The report identifies that the LVIA underestimates the overall level of landscape effects due to an array of methodological reasons **[46/§8.2.1]**, and reasons related to magnitude of effect (which should be judged using appropriate criteria **[47/§8.2.2]**).

3.8.4. The report identifies that the nature of the change proposed by the Scheme is in the nature of an industrial installation to generate electricity. This is a stark change from the existing rural setting **[47/§8.2.4]**. Further, at 1,237ha the scheme is one of the largest solar NSIPs in the UK **[48/§8.2.11]** and is broken into separate areas. This breaking-up of the Scheme amplifies its effects (e.g. by requiring a much larger number of access points) **[48/§§8.2.10-8.2.17]**.

3.8.5. In respect of direct effects on the landscape fabric, the report again notes that the Applicant conflates fabric with overall landscape character **[49/§8.3.3]**. The LVIA also unduly focuses on fabric without identifying other changes to character, including both tangible and intangible qualities **[49-50/§8.3.5]**. The report goes on to raise concerns about inconsistencies in the approach adopted in the LVIA to addressing fabric and overall character **[50/§8.3.7]**. This extends to a Moderate Beneficial Effect on the sites' landscape fabric identified in the LVIA, which clearly arises from double counting mitigation measures (i.e. counting them once to mitigate to neutral, and again to enhance to a beneficial effect) **[51/§8.3.17]**.

3.8.6. In respect of direct effects on landscape character, the report again notes that the LVIA failed to assess the direct effects that would occur on the overall landscape character of the sites at all stages **[52/§8.4.3]**. However, the Applicant in **[PDA-009]** SLD-024 does now appear to accept that at site level the character of the site would be significantly adversely affected. The report recognises a Major Adverse (significant) effect on landscape character for the sites in the operational phase **[52/§8.4.6]**, with a similar such effect in the construction phase **[53/§8.4.10]**. As to decommissioning, the report identifies the effects as Major Adverse (significant) for High sensitivity receptors, gradually reducing down to Neutral as industrialising elements are removed **[56/§8.4.36]**. It should, however,

be recognised that some effects are permanent and will not be decommissioned (or will not be remediable) **[54/§8.4.20]**.

3.8.7. As to post-Scheme effects on landscape character, the report notes some effects (e.g. loss of irreplaceable habitats) will be permanent **[56/§8.4.40]**. The lack of security that various measures will remain, on a reasonable worst-case basis is noted **[56/§8.4.43]**, as is the apparent double counting of mitigation. However, it is noted that in theory benefits can arise from measures which are likely to remain **[56/§8.4.46]**, and more information is sought **[57/§8.4.47]**.

3.8.8. Turning from direct to indirect effects on landscape character, the report notes a range of indirect effects including on the CNL and its setting **[57/§8.5.3]**. Of effects from construction up to Year 15, the report agrees that there will be significant adverse effects, but considers the concentrating of construction effects, Year 1 effects, and Year 15 effects into one overall assessed effect to be inappropriate. It may be because construction effects have been inappropriately minimised on the basis that they are "temporary" **[57/§§8.5.5-8.5.8]**.

3.8.9. As to effects in Year 15-60, the report does not agree with the assessment of non-significant effects up to the 5km Order Limits. Given the size and scale of the scheme, it is inevitable indirect effects on character will be experienced over large distances. As a result, the report concludes that at and just beyond the 1km study area there would be Major-Moderate Adverse (significant) effects, which would then reduce as the distance increases to 5km **[58/§8.5.10]**.

3.8.10. As to decommissioning, the same considerations as with direct effects apply. Thus, the report notes that the highest level of indirect decommissioning effect would be Major-Moderate (significant), but that this would reduce over time **[58/§8.5.13]**.

3.8.11. Concerning mitigation, the report notes that not all indirect adverse effects on landscape character can be screened **[58/§8.5.17]**. It also notes that the LVIA

fails to identify with effects aside from visual effects which are still relevant to the assessment of effects on character **[58/§8.5.19]** leading to underestimation. Non-visual effects are also much more difficult to mitigate **[59/§8.5.21]**. Given much of the mitigation does rely on screening, it is inappropriate for the LVIA to rely on summer views in Years 15 to 60 **[59/§8.5.24]**.

3.8.12. An important further effect, impacting in particular the CNL and its setting, is construction route landscape character effects. While the LVIA only makes brief mention of this issue, it would appear that the Applicant considers such effects not to be significant (using their "temporary" nature to minimise their significance) **[60/§§8.6.4-8.6.5]**. In contrast, the CNL Board consider that the effect on the CNL will be significant given (particularly) effects on tranquillity, landscape and scenic beauty **[61/§8.6.7]**.

3.8.13. The report refers to the various uses made of the highways in the area, and the many receptors that use those routes (including equestrians, cyclists, and pedestrians) **[64/§8.6.27]**. It goes on to consider the Primary Construction Route through the CNL, and characterise the route (from **[64/§8.6.30]**). The report concludes by agreeing that the landscapes through which this access route runs (both in the CNL and its setting) is High sensitivity **[71/§8.6.48]**.

3.8.14. The report disagrees that landscape and visual effects along the construction route are not significant **[72/§8.6.57]**. Given its routing through the CNL, use recreationally, and (at various point) inappropriate characteristics for HGV, the Primary Construction Route is wholly unsuitable for such large vehicles **[73/§8.6.61]**. In that regard the report makes reference to conclusions of the SLD highways expert (see further in this Written Representation below) **[73/§8.6.61]**. The overall conclusion of the report is that the construction route will have significant direct and indirect adverse effects in the construction phase **[72/§8.6.65]**.

3.8.15. Given the significant indirect effect on character of the Scheme, this extends to the CNL itself. Similarly, significant direct adverse effects on character occur in the CNL setting **[78/8.7.2]**. These effects would be highest closest to the Order limits, and decrease with distance **[78/8.7.3]**. The report considers there would be significant direct and indirect adverse effects on the CNL due to the construction route **[78/8.7.4]**.

3.8.16. Amongst various flaws leading to the underestimation of harm on the CNL, key is the double counting of landscape / visual mitigation measures as enhancements. This has led to an inappropriate approach to the s.85 duty to "further the purpose of conserving and enhancing the natural beauty" of the CNL **[79/§8.7.11]**. Much stems from the work that the Applicant proposes to do to the landscape fabric by way of mitigation, which is double counted as enhancement. Once properly understood as mitigation, the best it can provide is a neutral effect. And, indeed, it can give rise to significant adverse effects due to it being inappropriate" **[79/§8.7.14]**.

3.8.17. Given the Applicant now accepts significant adverse effects to the site itself, the report concludes that the benefit of any fabric enhancement that might be identified is fully outweighed by the harm to the overall character **[79/§8.7.16]**. Indeed, most proposed fabric works related to the CNL is to mitigate effects upon it, which is key in understanding furthering of its purposes **[80/§§8.7.18-8.7.19]**. That the furthering is predicated on mitigation measures being counted as enhancement is clear from the Applicant's documentation **[80/§8.7.22]**. Indeed, the CNL Board is concerned by this, and (for example) identifies maintaining hedgerows at 1.5m should "not be considered as enhancement" **[80/§8.7.26]**.

3.8.18. As to tranquillity, this is a key recognised feature of the CNL, including in the CNL Management Plan. **[81/§8.7.29]**. Policy CE5 of the Plan identifies concerns about noise and increased traffic as relevant to that tranquillity **[81/§8.7.30]**. The Plan also identifies "major development" in the setting of the CNL to be a particular concern (especially due to visual and tranquillity impacts) **[81/§8.7.31]**.

It is for this reason that the increased traffic (which SLD considers may be an increase of 158%) is not appropriate **[81/§8.7.32]**.

3.8.19. The Applicant produced a Tranquillity Technical Note **[PDA-010]**. The report disagrees with its conclusions **[81/§8.7.34]**. The conclusion that tranquillity remains intact with only negligible minor localised changes is wrong, but also only focuses on visual effects which is inappropriate (and, even in doing that, did not consider sequential visual effects) **[82/§8.7.37]**. The report goes on to note noise effects on the CNL and its setting, and also the disruption of recreational routes into and out of the CNL by the cable route works. **[82/§8.7.45]**.

3.8.20. Overall, the report concludes that the Scheme should not be understood as furthering the purposes of the CNL **[81/§8.7.47]**.

3.9. Amenity Effects

3.9.1. The report explains that the highest sensitivity amenity receptors would experience significant adverse effects during all phases of the Scheme, albeit the worst would be in construction and decommissioning. The long operational phase is likely to deter people from travelling through and visiting the area for recreation **[84/§9.2]**. In part this conclusion is based on the Applicant itself identifying significant adverse effects on landscape character and visual amenity within the Order Limits and in the landscapes at least 1km beyond the limits **[84/§9.3]**. Various policies recognise the impact that negative amenity effects can have on health and wellbeing, and the desire to live or be somewhere **[85/§9.13]**.

3.9.2. The report recognises a number of amenity effects, including residential effects. Noise is noted particularly in relation to the tranquillity in the CNL and also its setting and the notable effect of the Scheme both in construction but also in operation (due to electrical buzzing) **[86/§9.20]**. This will be a change from a very (sometimes extremely) quiet rural environment to one with sounds of a more industrial nature **[86/§9.21]**.

3.9.3. An important consideration is that high quality landscape increases wellbeing **[86/§9.25]**, including through the use of PRoW. SLD conducted an informal survey of some PRoW users **[Appendix Y]**, and the contribution of the landscape was captured. Ultimately, the high levels of tranquillity, combined with high quality landscapes and informal recreational resources, including the Fosse Way, and long-distance trails and BOATs, means that the area is of high amenity value. This is further contributed to as a route to and from the CNL **[88/§9.41]**.

3.9.4. The report notes that landscapes occupied by the sites form an important and integral part of the recreational experience, for example when using PRoWs. For such routes, the most profound negative changes to people's experiences would be on PRoWs across the site where visual and other amenity effects would be very high **[90/§9.44]**. This is due to proximity to large industrialising elements, their visibility, but also screening which causes the loss of pleasant open views (particularly through the use of tall hedges) **[90/§9.45]** and thus loss of tranquillity **[90/§9.46]**.

3.9.5. The report disagrees with the Applicant not finding significant adverse effects on amenity. It recommends more granularity is required to properly capture effects **[91/§9.54]**. It requires consideration of how individual effects combine **[91/§9.55]**. The report ultimately concludes that a wide range of effects, and some will be significant due to the disruption and particularly high levels of visual and other amenity effects **[92/§9.58]**.

3.10. Visual Effects

3.10.1. The report notes that many of the technical issues addressed in the remainder of the report bleed through into the assessment of visual effects **[93/§10.2.1]**. This includes the over-reliance on vegetation to screen views, which is indicative of the inappropriateness of the location **[94/§10.2.4]**. In any event, the Applicant itself accepts not all views could be screened by vegetation **[94/§10.2.5]**.

3.10.2. A particular reason for the significant effects of the Scheme is the size of the panels: while not completely novel, 4.5m panels are unusual, harder to mitigate, and have a more considerable effect on landscape and visual amenity impacts **[94/§10.2.6]**. Other schemes have utilised substantially smaller panels to reduce such effects (see, for example, the 2.5m panels proposed to be used in the Sunnica DCO **[94/§10.2.10]**).

3.10.3. The report agrees with the visual study boundary, however, it considers it to be likely that there will be significant adverse effects along the construction route (including in the CNL and its setting) **[94/§10.2.12]**.

3.10.4. It also notes of susceptibility that there has been underestimation as it has been assumed to be on the basis of the change being proposed **[83/§10.2.19]**, and also because of the use of visual susceptibility criteria related to value. For example, numerous visual receptors using transport routes are described as Medium visual value, yet the landscape the routes pass through is the CNL and its setting which is of High Value. As such, the visual value should be reported as High not High-Medium **[96/§10.2.23]**. The LVIA also failed to consider the height of some receptors such as people on horseback **[96/§10.2.25]**.

3.10.5. As has been noted, the use of high hedges is not consistently successful, uncharacteristic, and results in the total loss of views. This results in the identification of High adverse magnitudes of change, and is particularly of note in the CNL (for which some mitigation, in the form of limiting hedge height to 1.5m, is provided). However, wide views over the area are an important feature of LCA 8 and many of these views will be lost **[96-97/§§10.2.26-10.2.32]**. As was already noted above, the LVIA also does not consistently present the reasonable worst case **[98/§10.2.33]**. It is also noted that Year 15 winter is not illustrated and reported **[101/§10.2.39]**.

3.10.6. There are also various flaws with the photomontages and visualisations, including the limited (one) example of changes of views of people travelling on PRoWs **[101/§10.2.44]**, and a failure to characterise the visualisations with the effects of reality in the field (e.g. glint, proper colour etc) **[101/§10.2.45]**.

3.10.7. Of public views, the report agrees with the Applicant that numerous visual receptors would expertise significant adverse effects during construction and Years 1-15. However, it goes on to consider that there has been underestimation of effects at all stages of the life of the Scheme **[105/§10.3.3]**.

3.10.8. As to the visual effects on public views in the CNL, the LVIA does not reflect the effects identified elsewhere in that assessment which predicts significant adverse residual effects on landscape character and certain views including the CNL and its setting. Many landscapes and visual receptors are of High sensitivity **[106/§10.3.10]**. Again, there is the reliance on hedges but these are proposed to be up to 4.5m tall and thus result in loss of views **[106/§10.3.11]**. Effect on visual receptors from views in the CNL would ultimately be Major adverse **[106/§10.3.13]**.

3.10.9. Significant and detrimental changes will be felt by the PRoWs crossing the Scheme site. Again, these are High sensitivity receptors **[106/§10.3.16]**. The effect of the Scheme on these PRoWs would be to sterilise the landscape **[107/10.3.18]** and create long inescapable corridors **[107/§10.3.19]**. The 30m width for such corridors is noted, however, it is likely that this is provided because of the significant size of the solar panels **[107/§§10.3.22-10.3.23]**. When assessing such PRoWs it is important to recognise and consider that views are not static but rather there are sequential views as people travel down PRoWs. At least one PRoW is surrounded by the Scheme for circa 1.5km **[108/§10.3.28]**. Given the limited visualisations for PRoWs, the report requests that further such visualisations be provided **[109/§10.3.38]**.

3.10.10. As to private views, the Applicant itself identifies significant effects up to Year 15. However, the report considers the effects are underestimated as a result of classification of visual value as Low (notwithstanding the High value landscapes in which properties are found) **[110/§§10.4.4-10.4.5]**. Considering the particularly impacted Grain Store Barn, the report identifies Major Adverse to Year 15 and then Major-Moderate Adverse to Year 60 **[111/§§10.4.7-10.4.8]**. This mistaken approach to landscape value that means many visual receptors are likely to experience significant adverse visual effects for the duration of operation **[111/§10.4.10]**. In addition, the effect on locations with full screening of views for High sensitivity receptors would be Major Adverse as well **[111/§10.4.12]**.

3.10.11. The report also considers the need for a residential visual amenity assessment ("RVAA"). It is apparent that the test for a stage 4 assessment is whether there is the "largest" magnitude of effect **[112/§10.4.18]**. The report notes that there is no guidance on how to identify such effects **[112§/10.4.20]**. Considering whether to include mitigation **[112/§10.4.25]** and the propensity for foliage mitigation to be ineffective **[112/§10.4.26]**, the report concludes that a RVAA should be conducted for Grain Store Barn as in an exercise of judgment the report identifying Major Adverse (significant) effects was considered to pass into the stage 4 test **[112/§10.4.27]**.

3.11. Glint and Glare Effects

3.11.1. In respect of glint and glare effects, the report notes the negative impact that such effects can have on many aspects of a person's life. This goes past simply visual effects to effects on residential amenity and recreational use **[114/§11.6]**. The Applicant fails to assess various of these impacts from a landscape perspective **[114/§11.8]**. It also does not address the issue of residential visual amenity **[115/§11.20]**. Noting the evidence of SLD's expert on glint and glare, the report considers that there are potentially significant adverse effects from glint and glare on PRoWs, local roads, and private land. The report also notes that

glint and glare is likely to contribute to the reason why people cease visiting an area **[107/§11.39]**.

3.12. Cumulative Effects

3.12.1. The report overall disagrees with the conclusions on inter and intra project cumulative effects for the Scheme, and concludes that they should have been assessed at a greater and higher level than the LVIA predicts **[118/§12.2]**.

3.12.2. The report does not agree with the conclusions, partly because the report identifies larger effects than those identified by the Applicant **[118/§12.5]**. It also identifies methodological concerns with the LVIA, most importantly the apparent focus on intervisibility (to the detriment of other considerations) and the failure to focus on sequential views **[118/§§12.7-12.9]**.

3.12.3. This is all further amplified by the use of 4.5m panels **[119/§12.18]**. Overall the inter and intra-project effects would be significant **[119/§12.18]**.

3.13. Conclusion

3.13.1. It is recognised that all NSIP scale infrastructure have landscape and visual effects (NPS EN-1 para 5.10.5). However, the report has identified significant effects both within and outside the Cotswolds National Landscape at the highest level. It has also identified a host of other effects which the Applicant failed to assess, themselves significant. This cannot but weigh against the Scheme, and seriously challenges (as other sections of this Written Representation do as well) suggestions of compliance with the s.85 CROW 2000 duty.

4. Cultural Heritage

4.1. Introduction

4.1.1. On behalf of SLD, a heritage report has been prepared by Lucy Nicholson LLB, MA, Pg Cert, MRTPI, IHBC (who has focussed on built heritage) and Tom Linnington, BA, MCiFA (who has focussed on archaeology) (**Appendix C**). Where references are made to pages or paragraphs, they are to the Report unless otherwise stated.

4.1.2. The report provides a critical assessment of the built heritage and archaeological elements of the application for the scheme at Lime Down Solar Park and has provided a further assessment as required of the Scheme's impact on built heritage and archaeology. The report has conducted a proportionate review of the Applicant's submission, focussing on those areas which the authors identify as having been omitted from the Applicant's assessment.

4.2. Policy

4.2.1. NPS EN-1 requires the Applicant to assess likely significant heritage impacts as part of the ES, including an application of the mitigation hierarchy and consideration of possible impacts, including cumulative, on the wider historic environment. NPS EN-1 provides further details of what the Applicant should assess at paragraphs 5.9.9 to 5.9.21.

4.2.2. EN-1 provides guidance on how the Secretary of State should approach decision-making:

4.2.2.1. The Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development (either directly or through an effect on its setting), taking into account the relevant information in the application and the other information sources set out in paragraph 5.9.22.

4.2.2.2. When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance.

4.2.2.3. The Secretary of State should give considerable importance and weight to the desirability of preserving all heritage assets. Any harm or loss of significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification.

4.2.2.4. Where a proposed development will lead to substantial harm to or loss of significance of a designated heritage asset, the Secretary of State should refuse consent unless the tests set out in paragraph 5.9.31 can be met (for instance, that the harm is outweighed by the substantial public benefits of the development).

4.2.2.5. For non-designated heritage assets, a balanced judgment will be required, having regard to the scale of harm or loss and the significance of the heritage asset.

4.2.2.6. When considering applications for development affecting the setting of a designated heritage asset, the Secretary of State should give appropriate weight to the desirability of preserving the setting of such assets and treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the Secretary of State should give great weight to any negative effects, when weighing them against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval.

4.3. Archaeology

4.3.1. In relation to archaeology, **Appendix C** concludes that the following points have not been adequately addressed in the Applicant's submission [**14/§3.3**]:

- Heritage significance of the Roman Fosse Way and its relationship with contemporary settlement sites and the impact thereupon by the Solar PV;
- Inconsistency in impact assessment regarding areas of 'non-intrusive construction methodology';
- The lack of appropriate impact assessment of proposed intrusive landscape and ecological mitigation;
- The lack of appropriate briefing arrangements ahead of archaeological works to non-archaeological personnel; and
- The appropriateness of horizontal directional drilling ('HDD') in proximity to scheduled monument 1018610 (Pillow mound 280m southwest of Surrendell Farm).

4.3.2. In particular, the report notes that the Fosse Way, being one of the principal Roman routeways, could be considered to be non-designated heritage of national significance [**15/§3.7**]. The report considers that it ought to be assigned a heritage sensitivity of "Medium" if not "High" [**15/§3.7**]. It is observed that, given the likely loss of archaeological remains and the visual disruption caused by the introduction of the solar panels, there would be harm to the ability to appreciate the historical and fictional relationship between the Fosse Way and associated archaeological remains. As a consequence, the magnitude of effect is "Low" [**15 /§3.9**]. This would result in Moderate adverse effect, which is significant [**16 /§3.10**].

4.3.3. The report further highlights the lack of appropriate assessment of potential impacts on buried archaeological remains in areas selected for intrusive landscape and ecological mitigation [**16/§§3.13-3.16**]. The Applicant further appears to consider the employment of strip map and sample excavation to be sufficient to substantially eliminate the harm [**17/§3.20**]. The report observes that the SMS does not reduce the magnitude to Negligible, but rather Low. As a consequence the residual adverse effect will be Moderate adverse, which is a

significant effect, for D24-01 [**18/§3.21**]. For receptors C13-01 and C29-01, the residual effect will be moderate/minor [**17/§3.21**].

4.3.4. Marrons remain concerned that, at this stage, it has not been determined whether horizontal directional drilling will be appropriate at the sites – which the Applicant has proposed to prevent impacting highly sensitive archaeological remains in the Outline Archaeological Mitigation Strategy [**APP-230**]. In the event of trenchless cabling techniques, such as HDD, not being a viable in this location, the proposed solution by the Applicant is to undertake a program of strip, map and sample excavation along within mitigation area. However, excavation, through its nature is a destructive process, the harm of which, as noted above, is mitigated through the preservation by record [**17/§3.22**].

4.3.5. It is considered by Marrons that in the event of SMS is employed within the mitigation area F120, the residual effect on the Scheduled Monument 'Pillow mound 280m southwest of Surrendell Farm' (NHLE: 1018610), should be reassessed, as it will not be Neutral, as concluded by the applicant in Cultural Heritage Impact Assessment Tables [**APP-232**]. Applying the approach to SMS set out above, and recognising that a reasonable worst case is such HDD failing, the residual effect of SMS on this Receptor would be Moderate (a significant adverse effect) [**17-18/§3.25**].

4.4. Indirect Impacts on Built Heritage.

4.4.1. In relation to built heritage, **Appendix C** concludes that the Applicant's assessment is insufficient in regard to the following issues [**19/§3.26**]:

- Lack of adequate assessment in relation to the contribution of the Site to the setting of Bradfield Manor and associated listed buildings and omission of consideration of the impact of the increase of noise on the assets;
- Omission of the consideration of the impact of the increase of traffic to the group of assets at Alderton; and

- Omission of the consideration of the impact of noise on the asset group at Norton and Advil's Farmhouse, as well as the Rodbourne Conservation area.

Bradfield Manor Group

4.4.2. The high national significance of Bradfield Manor as a Grade I asset, combined with the proposed close proximity (180m) of the solar panels as well as the noise implications of the proximity of the BESS, means the impact on this asset and the wider group must be carefully considered by the Secretary of State [**21/§3.29**].

4.4.3. The report queries the level of detail provided to support the Applicant's assessment of the Grade I Manor. The setting analysis presented by the Applicant in the Heritage Statement simply states "Bradfield Manor has a historic relationship with much of the land within Lime Down D". The Applicant omits to provide any analysis of the contribution this historic relationship makes to the significance of the Grade I asset. [**20/§3.32-3.36**].

4.4.4. The report undertakes the necessary setting analysis and assesses the impact of the introduction of the BESS into the eastern part of the asset's setting and the panels to the north of the asset. In summary, it concludes that the Site contributes to the understanding of the asset group in four direct ways:

- through the historic functional relationship [**22/§§3.42-3.43**];
- through the existing agrarian landscaping [**22-23/§§3.44-3.45**];
- through the appearance of the Site within the designed views from the Parlor of the Manor (specifically to the Grade I Manor) [**23/§§3.46-3.47**]; and
- through the experience of the tranquil, rural setting [**23-24/§3.48-3.51**].

4.4.5. The report identifies the impact of the solar panels on the Manor is fourfold [**24/§3.53**]; first the erosion of the agrarian land with which the Manor has a historic functional relationship with and secondly, the change in character within those identified designed views from the Parlour, third the ability to appreciate the asset within its rural setting. And finally, the noise implications from the BESS and

panels. Indeed, it is considered that the four elements of the Site which contribute to the understanding of the significance of the asset are materially impacted as a result of the Scheme. The panels of Lime Down Area D would constitute a wholesale change of the northern setting of the Manor, comprising almost 180 degrees of the asset's setting.

4.4.6. As a consequence, the magnitude of the impact is considered to be Medium [**27/§3.61**]. This results in a Major/Moderate effect which is significant in EIA terms, but less than substantial harm [**27/3.62**].

4.4.7. A summary of the impacts on the Bradfield Manor assets is set out below:

Receptor	**Sensitivity of Receptor/ Magnitude of impact (with embedded mitigation)**
Bradfield Manor (Grade I)	Sensitivity: High Impact: Medium The Scheme would result in a noticeably different change to the setting of the asset and would result in an erosion of our ability to understand the asset as a rural Manor at the centre of its farmland. Major/Moderate Adverse (significant effect)
Courtyard to the South East of Bradfield Manor (Grade II, NHLE: 1023202	Sensitivity: Medium: Impact: Low The Scheme would result in a slight change to the setting of this asset which would result in a change in our ability to understand and appreciate the asset. Moderate/Minor Adverse Effect
Barn to the South West of Bradfield Manor Farmhouse	Sensitivity: Medium Impact: Low The Scheme would result in a slight change to the setting of this asset which would result in a change in our ability to understand and appreciate the asset.

(Grade II, NHLE: 1198869)	Moderate/Minor Adverse Effect
Barn to East of Bradfield Manor Farmhouse (Grade II, NHLE: 1356036)	Sensitivity: Medium Impact: Low Low; the Scheme would result in a slight change to the setting of this asset which would result in a change in our ability to understand and appreciate the asset. Moderate/Minor Adverse Effect

Alderton Group

4.4.8. The Applicant's assessment fails to consider the impact of the increase of traffic associated with the access point at Alderton and the impact of this on the tranquil character of the setting .The report identifies that the location of the access to the Scheme being located within close proximity to these assets would cause an adverse impact to the tranquillity and understanding of the agrarian setting [**29/§3.67**].

4.4.9. That impact is particularly important in relation to the Church of St Giles (Grade II*). The Scheme layout positions the operational maintenance access at the existing field entrance which is located 140m to the east of the Churchyard boundary. The Applicant omits to consider the impact of this Scheme layout on the contribution of the rural setting to the tranquillity and calm character of the Churchyard [**30/§3.72**]. The Report identifies Moderate/Minor adverse effects.

4.4.10. The report further identifies Negligible adverse effects on the Alderton Conservation Area and the Manor Farmhouse (Grade II) as a consequence of the change to noise levels and the ability to appreciate the asset [**30/§3.72**].

Norton Group and Avil's Farmhouse

4.4.11. The Heritage Statements fails to adequately assess the impact of the noise effects of the proposed Scheme on the heritage assets [**31/§3.73**].

4.4.12. Norton currently experiences very low background noise levels during the daytime and night-time periods, characterised by the absence of industrial noise sources. The predicted noise levels from the BESS container area would be clearly distinguishable and perceptible within Norton as a continuous industrial sound (described as a hum by the applicant) [**32/§3.78**]. The considerable change in background noise would have a direct impact on the tranquil character of the setting of these assets. The quiet of the countryside is a key part of the factors that contribute to the sense of place, and the increase of the background noise is a material factor which should be considered.

4.4.13. The report identifies a Moderate adverse effect on Norton Manor (Grade II*), as a consequence of the impact of the noise on the setting of the Manor and the industrial character introduced to the setting as a consequence of the proposed development [**33-34/§3.79**]. That is a significant adverse effect.

4.4.14. Further Moderate/Minor adverse effects are identified in respect of [**34-35/§3.79**]:

- Gateway Boundary Wall to the South of Norton Manor (NHLE: 1023216)
- Gateway and Boundary Wall to Kitchen Garden, South of Norton Manor (NHLE: 1023218)
- Wellhead in Courtyard to the East of Norton Manor (NHLE: 1199011)
- Barn to the South West of Norton Manor (NHLE: 1199030)
- Church of All Saints (Grade II) and
- Unidentified Monument in the Churchyard, 3 Metres North of Porch, Church of All Saints

4.4.15. The resulting significant effect on Avil's Farmhouse is identified to be Negligible adverse as a consequence of the considerable change in background which

would have a direct impact on the tranquil character of the setting of the asset during the day [**34-35/§3.79**].

Rodbourne Conservation Area

4.4.16. Rodbourne Conservation Area is located to the east of Lime Down Area E. The Applicant has presented an assessment on the Conservation Area which we have reviewed as part of the preparation of this report. In this review, we have noted that the Applicant has failed to consider the impact of the positioning of the access way to the immediate west of the Conservation Area.

4.4.17. The resulting significant effect on the Conservation Area would be Negligible adverse [**36/§3.81**].

4.5. Conclusion

4.5.1. In relation to built heritage, Appendix C identifies a significant adverse effect in relation to Grade 1 Bradfield Manor as a result of the impacts of the Scheme. The impact arises from the erosion of the historic agrarian landscape, the change in the character of the views from the Parlour and the erosion of the agricultural setting and tranquil character of the Site.

4.5.2. In addition, this report has found adverse impacts to the group of assets at Alderton and the Conservation Area at Rodbourne as a result of the increase of traffic in the setting of the assets. Adverse impacts have also been found as a result of the noise impacts of the Scheme to the asset group at Norton and Avil's Farmhouse. In respect of Norton, the effect to Norton Manor is identified as significant, due to the noise effects changing the character of the setting.

4.5.3. In relation to archaeology, Marrons concludes that the impacts of the Scheme on the archaeological resource have not been fully and comprehensively assessed. Multiple significant effects are identified as a result of the underassessment of the Fosse Way, and overreliance on SMS. The report

demonstrates that impacts on the archaeological resource associated with the Scheme are higher than those concluded by the Applicant and that the present mitigation measures are not sufficiently effective or proportionate to the asset's individual or collective significance

5. Transportation and Traffic

5.1. Introduction

5.1.1. The area in which the Scheme is situated is notable for its narrow rural lanes, which are well-used by pedestrians, cyclists and equestrians not only from the local communities, but also visitors from further afield. Many people are extremely concerned about the traffic implications of the Scheme, which poses a risk of significant disruption, and potential injury / fatality.

5.1.2. Railton TPC Ltd has been commissioned by SLD to prepare a report for submission to the ExA with regard to the transport and highway impacts during construction of Lime Down Solar Park. The report is authored by the director of Railton TPC Ltd, Bruce Bamber and is listed at **Appendix D**. References in this section to pages or paragraph numbers are to that report, unless otherwise specified.

5.2. Policy

5.2.1. Relevant national policy is set out in NPS EN-1 and EN-3. Paragraph 5.14.21 of EN-1 sets out the key policy considertaions relation to transport against which the concerns set out below should be judged:

> "'5.14.21 The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision.'

5.2.2. Paragraph 4.3.12 further requires the Applicant to assess the likely worst-case effects of development.

> "Where some details are still to be finalised, the ES should, to the best of the applicant's knowledge, assess the likely worst-case environmental, social and

economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed."

5.3. Impact on Rural Lanes

5.3.1. The applicant's assessment of transport environmental impacts is deficient as it fails to recognise the sensitivity of narrow rural lanes to increases in HGV movements and it underplays the magnitude of impact of construction vehicles on the most sensitive areas [**12/§2.53**]. These lanes are particularly sensitive as a consequence of safety concerns for other drivers and vulnerable groups, such as pedestrians, cyclists, and equestrians. The transport and highways impact repot produced by Railton Ltd on behalf of SLD identifies the following rural lanes as being of insufficient width for vehicles to pass [**4/§2.5**]:

- Alderton Road;
- Fosse Way;
- Road East of Hullavington and Bradfield Cottages;
- Road between Fosse Way and Sherston;
- Unnamed Road, Sevington;
- Neeld Court;
- Fowlswick Lane;
- Chippenham Lane;
- Stowell Lane;
- Corsham Road.

5.3.2. Likewise, forward visibility is highly constrained in many places due to tight bends, hedgerows, trees and other structures located close to the carriageway edge [**9/§2.35**]. While the Applicant suggests that passing bays could be introduced, the ability to deliver passing bays of sufficient size is constrained by roadside vegetation, ditches and embankments [**10/§2.38**].

5.3.3. The Applicant dismisses the magnitude of impact on rural lanes on the basis of low existing HGV flows – but does not appear to consider this in the context of safety [**7/§2.20-2.21**]. It is doubtful that any of this could be effectively mitigated through the proposed HGV booking system. The level of coordination this would require, given there would be multiple construction sites operating every day, has been downplayed [**8/§2.24-2.25**]. Moreover, the Applicant will have no control over the movement of other large vehicles on the local highway network.

5.3.4. The impact of HGVs on the highway network during the construction of the cable route has not been properly assessed, despite the Applicant's suggestion that it will generate 77% of the HGVs predicted [**11/§2.40**]. SLD's report demonstrates that there are likely to be impacts on the following locations as a consequence of compound access points [**11/§2.45**]:

- Grittleton village;
- Fowlwisk Lane
- Sheldon village;
- South of railway, east of Corsham;
- Substation site.

5.3.5. Examination of the construction access strategy reveals that many construction vehicle routes are not of a standard capable of safely accommodating construction traffic. The applicant's proposed Highway Improvement Areas exclude many of the most sensitive highway links in both the solar array and cable route areas. Where improvements could be identified at a later stage, a reasonable worst case environmental impact is not assessed [**12/§2.54**].

5.4. Access Points

5.4.1. The applicant has not identified the amount of roadside vegetation and trees that would be required to be removed to achieve safe visibility splays and remove the need for banksmen. Since the acceptability of the widespread use of

banksmen is not certain, a reasonable worst case for assessment would include the removal of roadside vegetation and trees to allow safe visibility splays. The applicant has not assessed this reasonable worst case [**14/§3.6**].

5.4.2. The report identifies the following access locations as being particularly problematic [**14-15/§3.7**]: accesses 4, 9, 101 and 102, 109, 110 and 111, 118 to 122, 123 and 124, and 125.

5.5. Under-estimation of HGV Trip Generation

5.5.1. The Applicant, in response to Relevant Representations, has suggested that further information will be submitted on construction vehicle trip generation. Should this be forthcoming, SLD reserves its right to comment.

5.5.2. The report concludes that the applicant has not adopted a reasonable worst case when assessing the impacts of construction HGVs and the assessments do not, therefore, comply with the requirements of EN-1. There is substantial under-estimation of the number of HGV trips involved in the proposed development, even approaching the matter on a conservative assessment. The Report recalculates the Applicant's estimates of HGV movements during construction. In summary, they are:

5.5.2.1. A revised assessment of 65,813 movements as a result of construction trip generation for the solar array areas (+152% difference to the Applicant's estimation of 26,086) [**25/§4.62, Table 4**].

5.5.2.2. A revised assessment of 12,714 movements as a result of construction trip generation in the cable route corridor [**26/ §4.68**].

5.5.3. The applicant has also failed to assess the combined effects of solar array and cable route construction contrary to the Government's advice.

5.6. Magnitude of Impact of Construction Traffic

5.6.1. The Applicant provides a table showing the assignment of construction vehicles associated with the solar array areas but does not provide a flow diagram representing this spatially [**28/§5.1**]. Appendix 5 contains a flow diagram translating the Applicant's estimates into daily HGV flows on the surrounding highway network, but the figures only include HGVs associated with the solar arrays. When cable route construction is added, a ***substantial*** impact is also shown on the B4039 [**29/§5.7**]. On the basis of the revised assessment of HGV trip generation the levels of impact increase significantly. The Fosse Way experiences more than a four-fold increase in HGV movements [**29/§5.8**].

5.6.2. Table 5 in the Report illustrates changes in daily HGV movements on links [**28/§5.4**]:

Table 5: Increases in Daily HGV Movements on Links

Link	Existing Daily HGVs	Solar Arrays only (Applicant's calc.)		Solar Arrays and Cable Route (Applicant's calc.)		Solar Arrays and Cable Route (revised calc.)	
		No.	%	No.	%	No.	%
B4039	63	50	+76%	66	+101%	159	+243%
Road W of Grittleton	47	50	+102%	66	+135%	155	+325%
Fosse Way	20	50	+240%	50	+240%	139	+687%
Sherston Road	40	16	+38%	16	+38%	49	+118%
Road E of Hullavington	130	76	+56%	76	+56%	101	+78%
Bradfield Cottages	46	68	+143%	68	+143%	91	+194%

5.6.3. The Applicant judges the impact of HGVs in relation to the 'capacity' of the roads. Capacity refers to only one aspect of transport environmental assessment; driver delay. The applicant's statement suggests that the significance of the increases in HGV movements is dismissed on the basis of link capacity. This approach is not reliable or justifiable.

5.6.4. The relevance of low base flows should also be considered in the context of the *absolute* increase in HGV movements that is predicted [**30/§5.13**]. This will be significant and will be well above the threshold where a change in the road

environment will be perceived by, and will affect, highway users. For example, an increase of 93 HGV movements per day (Bradfield Cottages) would constitute an average of 13 HGVs per hour or one HGV every 4.6 minutes. Despite the obvious significance of the increases in HGV flows, the Applicant concludes that, "The effect of these changes in traffic flows, which are spread out across local highway network surrounding the scheme, is not forecast to have any significant effect over the course of the working day" [**APP-065/§1.9.9**].

5.7. Impact on Vulnerable Highway Users

5.7.1. The Applicant has not undertaken any surveys of vulnerable highway users who have the potential to be adversely affected by construction traffic [**34/§7.2**]. The Applicant makes an assumption that because of a lack of dedicated infrastructure, impacts on walkers, cyclists and equestrians are likely to be low.

5.7.2. HGVs on rural lanes that are used by vulnerable highway users leads to unacceptable impacts on highway safety, both an environmental impact that has not been adequately assessed by the applicant and a planning matter that EN-1 identifies as a reason for the Secretary of State to consider refusing development.

Impact on Pedestrians

5.7.3. Country lanes are often used by local residents either to access local facilities or to access PRoWs [**35/§7.6**]. In the absence of footways, pedestrians must walk within the carriageway. When there is no verge, pedestrians are particularly vulnerable to large vehicles since the opportunities to step out of the carriageway may be limited. Where the lane is bounded by a steep embankment, a pedestrian is at heightened risk as they may try to step onto the embankment and lose their footing.

5.7.4. The Applicant has undertaken no assessment of the potential of construction traffic to conflict with pedestrian use on country lanes.

5.7.5. The report notes, by way of example, that there could be a 190% increase along a section of "Walk 8" from Hullavington (Bradfield Wood and Malmesbury Common). The distance between the point where the southern PRoW connects with the lane and the point where the northernmost PRoW connects with the lane is 450m. A pedestrian would take around 5 minutes to walk this distance. On average the pedestrian would be passed by a construction HGV every time they walked this route [**35-38, §7.11-7.12**].

Impact on Cyclists

5.7.6. Cyclists are also put at risk by HGVs on country lanes. It is evident from site visits that the area is used by a significant number of cyclists. The Wiltshire Cycleway is a 160 miles circular route around the county that links to Sustrans National cycle routes and the South West Historical National Byway.

5.7.7. The report concludes that the proposed development would have an adverse impact on cyclists on the Fosse Way, on the road east of Hullavington, on the road to Sherston, and potentially on other parts of the local highway network used regularly by cyclists [**41/§7.33**]. It is further concluded that cyclists using designated routes and surrounding links are put at severe risk of injury or death in the presence of HGVs on narrow and winding rural lanes. This leads to an unacceptable impact on highway safety contrary to para 5.14.21 of EN-1, an effect that has not been properly assessed by the applicant [**42/§7.35**].

Impact on Equestrians

5.7.8. Likewise, equestrians are vulnerable to HGVs on narrow rural lanes. The Applicant provides no information relating to the locations of stables/liveries or any survey data focused on equestrian movements. The assessment is therefore cursory, deficient and dismissive of the possibility that these vulnerable highway users could be adversely affected by the proposals [**42/§7.38**].

5.8. Impact on Villages

5.8.1. The Report identifies a number of villages that are directly affected by the proposed construction traffic routes:

5.8.1.1. Hullavington [**44/§§8.2-8.4**]: Although construction traffic is not proposed to passthrough the village, the road to the east of Hullavington is predicted, on the basis of the applicant's calculations, to experience a 56% increase in HGV movements and Bradfield Cottages to experience a 143% increase in HGV movements. The road should properly be described as high sensitivity and therefore there would be a **major adverse impact** on the road.

5.8.1.2. Acton Turville [**44/§§8.5-8.8**]: The B4039 through Acton Turville falls within the CNL. Properly considered it should be considered *high sensitivity* as a consequence of its impacts on tranquillity. The revised assessment of HGV trip generation indicates a substantial magnitude of impact. As a consequence, there would be a **major adverse impact** on the B4039.

5.8.1.3. Burton [**45/§§8.9-8.12**]: The B4039 separates the majority of the village from the farm shop and the residential development on the northern side of the road. It has a high sensitivity with regard to sensitivity within the CNL. The revised assessment of HGV trip generation indicates a substantial magnitude of impact. As a consequence, there would be a **major/moderate adverse impact in relation to severance** and a **major/adverse impact** in relation to tranquillity on the B4039.

5.8.1.4. Grittleton [**46-47§§8.13-8.17**]: The Applicant identifies Grittleton as having high sensitivity due to its conservation area. As explained above, the route through Grittleton is likely to receive far more than average given the number of access points provided to a compound. The Report predicts a magnitude of impact of medium and the significant of the impact major/moderate adverse. As a consequence, it is likely that there would be **a significant adverse effect** on the highly sensitive village of Grittleton.

5.9. Impact on Cotswolds National Landscape

CNL Policy

5.9.1. Policy CE5 (Tranquillity) of the Cotswolds National Landscape Management Plan 2025- 2030 states:

> "CE5.1. Proposals that have the potential to impact on the tranquillity of the Cotswolds National Landscape (CNL) should be delivered in a way that is compatible with and seek to further the conservation and enhancement of this tranquillity, by seeking to avoid and where avoiding is not possible, minimise noise and other aural and visual disturbance.
> CE5.2. Measures should be taken to remove and where removal is not possible, minimise existing sources of noise and other aural and visual disturbance in order to enhance the tranquillity of the CNL.
> CE5.3. Proposals that have the potential to impact on the tranquillity of the CNL should have regard to – and be compatible with – the CNL Board's Tranquillity Position Statement'"

5.9.2. The Cotswolds Conservation Board (CCB) Position Statement on Tranquillity identifies the threshold, above which increases in traffic have the potential to lead to significant environmental effects (CCB Position Statement on Tranquillity, p.13):

> "The Board recommends that where a development is likely to increase traffic flows – or increase the number of heavy goods vehicles – by 10% or more, this should be considered significant."

5.9.3. The Tranquillity Position Statement goes on to identify vehicles as directly related to tranquillity in its Over-Arching Recommendations:

> "All relevant stakeholders should ensure that activities and proposals that affect or have the potential to impact on - the tranquillity of the Cotswolds AONB (p.2):
> [...]

- give great weight to conserving and enhancing the tranquillity of the AONB;

- assess potential impacts on tranquillity, particularly with regards to noise, vehicle movements, landscape […]"

Likely Impacts

5.9.4. There is a strong case for categorising the CNL as having high sensitivity to changes in traffic flows in relation to tranquillity and that increases in traffic flows above10% have the potential to lead to unacceptable harm [**49-50/§§10.5-10.8**]. The Applicant's own calculations demonstrate cumulative impacts far in excess of the 10% threshold identified by the CCB and ISEP. The revised estimate of trip generation described above identifies an increase of 243% [**50/§10.8-10.9**].

5.9.5. Both the Transport Chapter and the Landscape and Visual Chapter of the ES fail to assess the impacts of construction traffic on tranquillity within the CNL [**51/§10.14**]. The applicant has submitted a Tranquillity Technical Note (March 2026) (PDA-010). This reiterates the information concerning the applicant's assessment of transport environmental impacts within the CNL and provides no additional information relating to the impact of construction traffic on tranquillity.

5.9.6. The report concludes that the Applicant has failed to assess the adverse impacts of construction traffic on the CNL and, given the high magnitude of the increases in HGV flows and the area's high sensitivity, there is no doubt that construction traffic will have a major adverse impact on the CNL in relation to tranquillity.

5.10. Conclusion

5.10.1. Overall, SLD submits that there is strong evidence to suggest that the proposed development would have an unacceptable impact on highway safety – both through the impact on vulnerable highway users and inadequate safety arrangements at site access junctions.

5.10.2. It is also evident that the Applicant's assessments of transport impact do not assess a reasonable worst case and fail to assess the effects of construction

traffic on the tranquillity of the National Landscape and the high magnitude of impact in this area. In transport environmental terms, construction traffic is also likely to have significant adverse impacts on the settlements including Hullavington, Acton Turville, Burton and Grittleton. A summary of the transport environmental effects is provided below [**54/§12.1**]:

Table 6: Revised Assessment of Transport Environmental Effects (with embedded mitigation)

Receptor	Sensitivity	Magnitude of Impact	Significance of Effects	Notes
Cotswolds National Landscape	High (tranquillity)	High	Major adverse (temporary, medium term)	
Lane east of Hullavington	High (vulnerable highway users)	Medium	Major/moderate adverse (temporary, medium term)	Unacceptable impact on highway safety
Bradfield Cottages	High (vulnerable highway users)	High	Major adverse (temporary, medium term)	Unacceptable impact on highway safety
Acton Turville	High (CNL and primary school)	High	Major adverse (temporary, medium term)	
Burton	High (CNL and poor footways)	High	Major adverse (temporary, medium term)	
Grittleton	High (Conservation Area)	Low	Moderate adverse (temporary, medium term)	Potentially greater adverse due to access to compound
Lanes east of Rodbourne	High (vulnerable highway users on narrow lanes)	Medium	Major/moderate adverse (temporary, medium term)	Potentially unacceptable impact on highway safety

6. Glint and Glare

6.1. Introduction

6.1.1. An important feature of this Scheme is the proposed use of large 4.5m tracking panels. Such panels are a particular concern for the local community for many reasons, including the adverse landscape and visual effects, but also the risk of glint and glare causing harm to the safety of local roads, and local amenity. This is an important issue given the size and extent of the panels, and SLD has significant concerns about the yellow glare that this Scheme will produce.

6.1.2. On behalf of SLD, a glint and glare report has been produced by Straten Consulting Services Ltd (**Appendix G**). Where references are made to pages or paragraphs, they are to that report unless otherwise stated. It should be noted that the impacts of glint and glare in particular contexts (e.g. in LVIA or traffic assessment) is dealt with in the requisite section.

6.2. Policy

6.2.1. Save for a brief section on glare in the context of pilots and air traffic control (para 5.5.55), NPS EN-1 does not have a particular topic area on glint and glare effects. The matter is instead the focus of detailed policy in NPS EN-1 specifically in the context of solar generation.

6.2.2. Glint and glare is identified as one of the “two main impact issues that determine distances to sensitive receptors” in EN-3 (para 2.10.27). While the policy recognises that solar panels are specifically designed to absorb, not reflect light, glint and glare is still possible as a result of the sun’s rays hitting panels at certain angles (para 2.10.102). Applicants are required to map receptors and identify the potential for such effects (para 2.10.104). In doing so, applicant should assess the geometric possibility of glint and glare affecting nearby receptors, and provide an assessment of potential impact and impairment based on angle and duration of incidence and the intensity of reflection (para 2.10.104).

6.2.3. Importantly, NPS EN-3 notes that glint and glare will depend on specific project design, and that "This may need to account for 'tracking' panels if they are proposed as these can cause differential diurnal and/or seasonal impacts" (para 2.10.105).

6.2.4. Various mitigations are detailed at para 2.10-134-2.10.136 including anti-glare/anti-reflective coatings and controlling angles of maximum reflection, use of screening, and control of alignments.

6.2.5. As to impacts, the SoS is directed to "assess the potential impact of glint and glare on nearby homes, motorists, public rights of way, and aviation infrastructure (including aircraft departure and arrival flight paths) (para 2.10.158). It is then explained that it is unlikely that the SoS "is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare" (para 2.10.159).

6.3. Assessment tools and parameters

6.3.1. The report begins by setting out the various technical assessment tools and parameters at **[4/1.2]**. It also sets out the definition of "Green" glare with a "low potential for temporary after-image. Glare exists within the receptor's field of view but is assessed by the Sandia model as unlikely to produce a lasting visual effect"; and, "Yellow" glare with a "potential for temporary after-image. This is the more significant intensity classification, indicating that the reflected irradiance is sufficient to produce a temporary visual impairment lasting beyond the period of direct exposure" **[4/1.3]**.

6.4. PV array configuration and scale

6.4.1. The report notes that the size of the Scheme means that it is inappropriate to assess glare impacts from individual array zones. Rather, each aviation, road and

rail receptor is exposed to glare from multiple arrays simultaneously or sequentially each day **[5/2.2(a)]**. Then report also notes that (for array D1-2 for example) a panel array of 145 hectares subtends a far wider arc of azimuth and elevation from a given receptor than a small installation. This means that the window of time during which the sun's angle can produce specular reflection into the receptor's field of view is "considerably extended". Ultimately, academic evidence supports the principle that cumulative photovoltaic glare is a function of panel area, ground reflective power geometry and receptor sensitivity **[6/2.2(b)]**.

6.5. ForgeSolar results

6.5.1. The report identifies an aggregate yellow glare from the scheme of 395,315 minutes (equivalent to 6,589 hours) across all arrays and receptors, which is highly significant **[6/3.1]**. This is not a seasonal anomaly, with Arrays C, D1-2 and D3 exhibiting persistent glare for the entire year. This is a structural characteristic of the development geometry relative to local receptor positions. This is a permanent operative burden **[7/3.2]**.

6.6. Aviation receptor results

6.6.1. The report agrees with the review of Bowldown Farm Airfield, Charlton Park Airfield, and Langley House Airfield. However, the report suggests scrutiny should be applied to the question of whether the currently unused airfield at Hullavington should be assessed given the length of life of the Scheme. While Langley House identified no glare, Bowldown Farm Airfield received 12,704 minutes of green glare and Charlton Park Airfield 13,340 minutes **[7/4.2-4.4]**. While yellow glare was expected (as is consistent with tracking panels), the green glare figures were considered a material cumulative effect **[9/4.5]**.

6.7. Road and rail receptors

6.7.1. Turning to road and rail receptors, two primary road routes were reviewed by the Applicant along with the A429. The Report identifies that, for road 1 and 2, there is respectively 47,246 and 47,498 minutes of yellow glare. The former is the equivalent of 787 hours in the year. These figures indicate sustained intense photovoltaic reflection episodes towards road users throughout the operational life of the scheme **[10/5.1]**.

6.7.2. As to rail receptors, two rail receptors experience yellow glare at 26,868 minutes (rail 2) and 11,834 minutes (rail 3) respectively. The former is the equivalent of 448 hours a year. Again, these figures represent persistent, operationally significant photovoltaic glare in the field of view of train drivers (a safety-critical receptor category) **[11/5.2]**.

6.8. Comparative review with Pager Power Report

6.8.1. The report notes that the Applicant's report does not produce the ForgeSolar outputs. This should be done as it allows for consideration of the underlying evidence, and also will provide quantification of duration, monthly distribution or annual cumulative minutes of predicted glare. Such an omission currently is fundamental as it means that there is no way to understand how significance conclusions have been reached. Given Straten CSL's conclusions, this is even more pressing **[11/6.2]**.

6.8.2. It is also noted that Pager Power has not modelled local roads where "traffic densities are likely to be relatively low". This is not accepted as an approach, and appears inconsistent with Pager Powers own concerns that "reflections experienced towards a road network whereby the resultant impacts of solar reflections can be much more serious to safety" **[11/6.2]**.

6.8.3. The report notes that Pager Power apply a proprietary framework for assessing significance. However, a key deficiency with this is no qualitative thresholds are applied to define boundaries. There is only the exercise of judgment without

proper engagement or clarity on the underlying evidence base. As already identified above, this has led (for example) to the discounting of local roads notwithstanding density of traffic is not the key consideration. The key consideration is intensity of glare. This is an inappropriate approach to balancing probability against severity. As a result of this approach, the Applicant's figures cannot be understood or independently verified **[12/6.3]**.

6.8.4. A specific concern is identified in respect of Badminton Airfield. It is noted that there is no quantification of glare provided, a rationale based on "low sun angle" is insufficiently explained, there is an absence again of comparison graphs or impact scales, and the operational context of Badminton is misunderstood. Indeed, Pager Power appear to consider the airfield operating without air traffic control as a basis for concluding that traffic volumes are low. Whether or not that is the case, absence of ATC means that risks are higher as pilots must rely on visual observation; yellow glare risk at such airfields is more, not less, operationally significant **[13/6.4]**.

6.9. Recommendations

6.9.1. The Report makes a number of recommendations to carry forward in the Examination. The Report recommends the disclosure of the Pager Power ForgeSolar outputs, the provision of qualitative impact thresholds for the significance matrix, independent review of the assessments for Badminton Airfield and Bowldown Airfield, a requirement in the Applicant to address cumulative impacts of the Scheme's 563 hectare panel footprint rather than treating array zones discretely, and to consider whether the Rail 2 and Rail 3 effects have been sufficiently assessed in the context of train driver safety **[15/7.2]**.

6.10. Conclusion

6.10.1. Glint and glare is an important issue in this Examination due to the large panel sizes used (4.5 meters). SLD consider there are serious amenity and (more importantly) safety concerns arising out of its review of the glint and glare issue, posing a serios risk to roads and also harm to amenity. That risk on the road is not limited to cars, and would extend to cyclists and horse riders. It is key that data addressing the glint and glare effects be provided so that there can be a proper assessment of environmental effects (and query whether what has been provided is sufficient for the EIA Regulations). The Applicant clearly has taken an approach which understates the effects of glint and glare and there must be a full analysis of the underlying data. In the absence of this, the glare identified is a serious safety concern.

7. Noise Impacts

7.1. Introduction

7.1.1. The Scheme is proposed in an area notable for its tranquillity. Not only is this a special purpose of the Cotswolds National Landscape, but by its own assessment the Applicant has applied a noise floor to background levels for the entire site as it considered them very low. The tranquillity and quietness of this area is especially valued by locals and visitors alike, and provides the setting for various recreational uses (including walking and horse-riding) and for heritage assets. The Scheme will represent a remarkable intrusion into that tranquillity, bringing an incongruous electrical buzz which permeates villages, dwellings and recreation spaces. Even when the Scheme cannot be seen, those locally will be able to hear it. This is even true at night nearby to the BESS (with the Grade 1 listed Bradfield Manor bearing the auditory brunt of that aspect of the development). The noise profile of the Scheme is entirely inappropriate for this location and will contribute to the wholesale shift from a rural to an industrial landscape.

7.1.2. Ian MacArthur of Clarke Saunders Associates Ltd has been instructed by SLD to provide specialist expert advice in respect of the Scheme in the fields of acoustics, noise, and vibration control. His report (**Appendix H**) presents the findings of his assessment of the likely significant effects on noise and vibration as a result of the Scheme. References to the "Report" should be interpreted as the report of Ian MacArthur, unless the reference is otherwise specified.

7.2. Policy

7.2.1. NPS EN-1 recognises the well-known fact that excess noise "can have wide-ranging impacts on the quality of human life and health such as annoyance, sleep disturbance, cardiovascular disease and mental ill-health". It also recognises the impact on "enjoyment of areas of value such as quiet places and areas with high landscape policy" (para 5.12.1).

7.2.2. The policy directs that an applicant must conduct a noise assessment and, among other things, identify noise-sensitive receptors (para 5.12.6). Applicants are required to submit a "detailed impact assessment and mitigation plan" (para 5.12.12). Likewise, the SoS is directed to consider what mitigation measures are required for noise in the operational and construction phases, and may impose mitigation measures (para 5.12.13). The development consent order may itself include specific measurable requirements or mitigation measures for noise to ensure they do not exceed specific limits (para 5.12.18).

7.2.3. One important mitigation measure is layout, by which distance from source and sensitive receptors and using natural and purpose-built barriers can reduce effects (para 5.12.14).

7.2.4. The key test and policy is derived from the Noise Policy Statement for England. This is explained in the NPS at para 5.12.17 which describes that development consent not be granted unless the SoS is satisfied that the proposal "will meet the following aims, through the effective management and control of noise". These are (a) "avoid significant adverse impacts on health and quality of life from noise", typically characterised as a requirement to avoid noise which surpasses SOAEL (the significant observable adverse effect level); (b) "mitigate and minimise other adverse impacts on health and quality of life from noise", typically characterised as a requirement to mitigate noise which is at or surpasses the LOAEL (the lowest observable adverse effect level); and, (c) "where possible, contribute to improvements to health and quality of life through the effective management and control of noise".

7.2.5. The policy on PRoWs is set out under landscape above. However, it is relevant to look back to the requirement in para 2.10.42 of NPS EN-3 which directs that applicants "are encouraged to design the layout… of the site to ensure continued recreational use of public rights of way where possible… in particular during the operation of the site".

7.3. Construction effects

7.3.1. The report begins by noting that in the construction period there will be effects both above Lowest Observable Adverse Effect Level ("LOAEL") and above Significant Observable Adverse Effect Level ("SOAEL"). This includes night-time horizontal directional drilling which has the potential to produce significant effects on a number of sensitive receptors. While transient, there are no requirements of avoidance and mitigation in the Outline CEMP, and avoidance of such drilling is not secured **[3/§3.2]**.

7.4. Assessment methodology – policy and basis

7.4.1. Beginning from the requirements of para 5.12.17 and the Noise Policy Statement for England, the report identifies that the Applicant's approach is inconsistent with the policy framework. It is clear that the Applicant only seeks compliance with SOAEL, rather than avoiding significant effect and minimising LOAEL effects. This is a key defect in how the Applicant has approached the noise effects of the Scheme **[5/§4.6]**.

7.5. Quantification and description of background noise

7.5.1. The Applicant's approach to background noise is flawed in a number of key respects. To analyse this two monitoring locations are presented in the report (LT8 and LT12), albeit the inconsistencies identified apply across the entire scheme **[7/§5.3]**.

7.5.2. Reviewing the background noise measurements at LT8, the Applicant picked a daytime LA90 figure of 36dBL_{A90} and a night time figure of 29dBL_{A90} to represent the 'typical' background. That is the case notwithstanding that, in the daytime, the background noise level is below that figure more than 50% of the time, and can fall up to 11dB below. While it may not always be appropriate to apply a

precautionary approach and take the lowest figure, the approach of the Applicant is not robust. Rather, a figure in the lower range should be adopted to properly reflect the background, and the report suggests a figure in the range 23-25 dBL_{A90} at night and 30dBL_{A90} in the daytime **[8/§5.9]**. This is consistent with the applicable British Standard and guidance and the proper approach to assessing uncertain figures **[9/§5.11]**. It is hard to understand how the Applicant's figure represents what is 'typical'; rather, its approach disregards the majority of data.

7.5.3. The Applicant has accepted that data included in the range for LT8 from 28 October 2023 was affected by significant rainfall and considers it should be excluded (**[PDA-009]** SLD-099). However, it then suggests that it makes no difference to the figures picked. The report disagrees; given the figure is already above the mean, median and mode, that the some of the higher data for background noise should also be excluded indicates that the proper background noise figure should be further lowered. It is noted that the Applicant does not explain its professional judgment in coming to this conclusion **[9/§§5.15-5.16]**. Rather, the exclusion of that date further justifies the report's conclusions **[9/§5.17]**.

7.5.4. Reviewing the position for LT12, this is the monitoring location applicable to Bradfield Manor (at R10). As both a dwelling and a Grade I heritage asset, Bradfield Manor is particularly sensitive **[9/§5.18]**. Aside from concerns about the monitoring location being close to a road (and picking up vehicular traffic noise) **[10/§§5.20-5.21]**, it is apparent the figures for this location were affected by high winds. The British Standard emphasises that precautions should be taken in respect of such interference, and it is apparent that on days without wind the background noise was lower **[11/§§5.24-5.26]**.

7.5.5. It is apparent that the typical levels at this location fluctuate around 30dBL_{A90} in the daytime and 20dBL_{A90} at night **[11/§5.26]**. However, the Applicant has instead adopted a 34dBL_{A90} figure for daytime and 30dB_{LA90} for nighttime. Again, this has the effect of excluding the bottom 50% of measurements in setting a 'typical'

background noise **[11/5.28]**. This does not represent a typical day at Bradfield Manor with relatively low winds and no precipitation **[11/5.29]**. Currently, Bradifled Manor experiences very low background noise levels at day and night, characterised by an absence of industrial noise sources **[12/5.30]**. This analysis shows a persistent approach by the Applicant of setting inappropriately high background noise levels.

7.6. Public rights of way

7.6.1. As flagged above, the majority of monitoring locations were close to roads. For those which were not (e.g. LT3), there were low average L_{Aeq} levels ranging 35-45dB$L_{aq,T}$ during the daytime. This is indicative of ambient levels away from the transport network, which would be the majority of PRoWs **[12/5.31]**.

7.6.2. The Applicant did not assess noise impacts on the PRoW network on the basis of the transience of the usage. It was thought there would be no significant adverse effects on PRoW users **[12/5.32]**. However, this disregards the national policy supporting the avoidance and mitigation of effects on PRoWs (some of which is set out above) **[12/5.33]**. The Applicant appears to have confirmed a maximum of 52dBL_{Aeq} on PRoWs. However, by reference to the ambient levels on such routes, and the natural sounds found on them, the development noise sources would be significantly above and incongruous with the current background noise. It would significantly reduce tranquillity and the enjoyment of the value of the area **[12/5.36]**. The report disagrees with the Applicant's reliance on a figure for moderate annoyance of 55dB$L_{Aeq,16hr}$ for "moderate annoyance" using 1999 WHO guidelines, and prefers the same guidelines "Outdoors in parkland and conservation areas" which provides that "existing quiet outdoor areas should be preserved and the ratio of intruding noise to natural background should be kept low **[12/5.37]**. Ultimately, noise levels over 50dBL_{Aeq} would fall into the "moderate annoyance" category for WHO guidance; it is significantly above ambient **[12/5.38]**

7.6.3. The Report reviews the PRoW map against the daytime operational noise contours and identifies in excess of 10 PRoWs likely to experience plant noise levels over 50dBL_{Aeq} **[13/5.40]**. It is also noted that a number of these routes are routes which would be used to access the Cotswolds National Landscape **[13/5.41]** (See also the interactive map at Appendix Z if the reader wishes to overlay PRoW maps with the noise contours).

7.6.4. Put shortly, it is wrong to say that the noise produced by the Scheme would be "akin" to the existing conditions. It fails to recognise the existing tranquillity of the area **[14/5.44]**.

7.7. Operational noise impact

7.7.1. A key feature of the Applicant's approach is departing from the core British Standard to apply a background level floor of 30dB$_{A90}$ **[15/6.8]**. This effectively decouples the measurement of background noise from the assessment where locations have a background level below this figure **[15/6.9]**. It is not accepted that the guidance accepts an approach which wholesale replaces background measurements with fixed absolute thresholds **[15/6.10]**. The effect of doing this is to artificially raise the baseline and therefore raise the LOAEL and SOAEL level (which is set against the baseline) **[15/6.14]**.

7.7.2. In essence, this means the Applicant treats 35dB$L_{Ar,T}$ as inherently acceptable in design **[15/6.15]**; that is the case notwithstanding this on some occasions being a 15dB exceedance of the true background levels (an exceedance the British Standard would identify as significant). For locations where background in reality falls to 20dB$L_{Ar,T}$, the 35dB$L_{Ar,T}$ is essentially the SOAEL level and (but for this approach by the Applicant) would be significant in EIA terms in itself **[15/6.14]**. This is a misinterpretation of the British Standard, which encourages considering both absolute and relative levels, rather than substituting one for the other **[15/6.16]**.

7.7.3. The effect of this approach to background is, in essence, pre-determining the outcome rather than applying an objective analysis. It is an improper "one size fits all" approach to backgrounds below 30dBL_{A90} **[16/6.21]**. This is particularly problematic in a location where there is such tranquillity **[16/6.23]**.

7.7.4. To test the above, one can return to considering Bradfield Manor. Applying the Applicant's approach, the daytime and nighttime noise level is 35dB$L_{Ar,T}$. Considered against the Applicant's fixed background of 30dBL_{A90}, this noise level is at SOAEL (which is set at +5dB above background). However, if a more representative nighttime figure were used, such as 20dBL_{A90}, the exceedance is 15dB and would be a major significant adverse effect in EIA terms. The noise from the BESS will be clearly distinguishable and perceptible as a continuous industrial sound (a hum) **[17/6.28-6.29]**. It would even be the dominant audible noise indoors at Bradfield Manor **[17/6.31]**.

7.7.5. For Bradfield Manor the Applicant has undertaken in the Outline OEMP to maintain Bradfield Manor a decimal point below the SOAEL. However, in policy terms, targeting just below the SOAEL is not an acceptable approach and fails to even try to mitigate effects above LOAEL **[17/6.33]**.

7.8. Noise character and uncertainty

7.8.1. It is correct that, as part of its assessment, the Applicant has made an adjustment (in the form of an acoustic feature penalty) pursuant to the British Standard to reflect the incongruous nature of the industrial sound (which makes it easier to identify) **[18/6.36-6.37]**. However, this does not attempt to justify or address the wholesale change of the soundscape from quiet rural to continuous industrial noise far in excess of background **[18/6.38]**. There also risk being methodological flaws and uncertainty in the approach to assessing the noise output of units, and mitigation measures **[18/6.40]**.

7.9. Noise mitigation and control

7.9.1. There are no practicable options for mitigation of external noise levels to residential dwellings **[19/6.42]**. For residents, internal mitigation can be achieved through keeping windows closed and finding other methods of ventilation **[19/6.43]**.

7.9.2. The resulting levels in the Outline OEMP aim to avoid significant effects. However, this does not justify change of the soundscape for the entire life of the Scheme (as it will be clearly audible) **[19/6.44]**. Other details about mitigation in the plans is limited; only 7 of 166 conversion units are allocated silencers, and there is not a proper attempt to mitigate noise effects at or above LOAEL **[19/6.45]**.

7.9.3. Some of the noise effects may well be mitigatable by the Scheme, but this is not provided for and it is not clear what trade-offs have been made **[19/6.51]**. Ultimately, there is a risk that building the Scheme without properly addressing this issue will result in a scheme with no practicable mitigation options; retrospective noise control is always less efficient and sustainable **[20/6.53]**.

7.10. Conclusion

7.10.1. The Applicant's noise assessment is based on a methodology that understates and fails to clearly define the likely significant effects arising from the development. As a result, it does not provide a robust or reliable basis for the assessment of the potential adverse noise impacts.

7.10.2. In the context of the tranquillity of the area, even moderate levels of continuous industrial noise would be clearly perceptible at and within nearby residential receptors and would result in a material and permanent change to the existing acoustic environment and rural character. The adoption of fixed raised background noise levels in the assessment prioritises development feasibility and flexibility over preserving quiet rural amenity. In a quiet rural countryside

environment, this effectively permits noticeable intrusion where residents and visitors value natural quiet as an environmental amenity.

7.10.3. The Applicant's commitments to limit noise emissions to the levels predicted within the assessment are insufficient to provide adequate protection. They rely on constraining impacts to levels marginally below an adopted threshold of significant impact, rather than securing avoidance and meaningful minimisation of identified adverse effects, contrary to the principles of the NPSE, NPS-EN-1 and NPPF.

7.10.4. Further scheme mitigation is likely to be available and practicable to reduce some of the operational noise emissions from the development. A commitment to lower noise emissions and targets, taking proper account of the very quiet rural nature of the area, and potential adverse effects on residences and higher sensitivity receptors, would be required to deliver the stated goal of minimising adverse noise impacts.

8. Water Environment and Flood Risk

8.1. Introduction

8.1.1. Flood is a serious issue in the area around the Scheme and is a matter of great importance to local people. In summary, SLD's position in respect of flooding is as follows:

- The methodology of the Applicant's Flood Risk Assessment is seriously flawed and underestimates the current flood risk;
- The FRA fails to properly assess the increase to flood risk arising from the project;
- In respect of site selection, the scheme fails the Sequential Test and the Exception Test – the project will not be safe for its lifetime and will increase flood risk elsewhere; and
- In respect of site design, the Applicant has failed to design the Scheme to avoid land with an increased flood risk.

8.1.2. Professor Richard Skeffington has prepared four papers on behalf of SLD in respect of flood risk:

- Critique of the Applicant's Flood Risk Assessment for the Lime Down Solar Park ("**F1**)
- Runoff from Solar Panels at Lime Down ("**F2**")
- Observations of flood extent above Corston ("**F3**")
- Flood Risk at Lime Down due to Reduced Evaporation ("**F4**")

8.2. Policy

8.2.1. NPS EN-1 sets out the Government's policy in respect of flood risk and the delivery of nationally significant energy infrastructure. The major statement of flooding policy is Section 5.8, which provides (emphasis added):

8.2.1.1. “The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to steer new development to areas with the lowest risk of flooding.” (§5.8.6)

8.2.1.2. “Where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. It should also be designed and constructed to remain operational in times of flood.” (§5.8.7)

8.2.1.3. “If, following application of the Sequential Test, it is not possible, (taking into account wider sustainable development objectives), for the project to be located in areas of lower flood risk the Exception Test can be applied as defined in https://www.gov.uk/guidance/flood-risk-and-coastal-change#table2. The test provides a method of allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available.” (§5.8.8)

8.2.1.4. “The Exception Test is only appropriate for use where the Sequential Test alone cannot deliver an acceptable site. It would only be appropriate to move onto the Exception Test when the Sequential Test has identified reasonably available, lower risk sites appropriate for the proposed development where, accounting for wider sustainable development objectives, application of relevant policies would provide a clear reason for refusing development in any alternative locations identified. Examples could include alternative site(s) that are subject to national designations such as landscape, heritage and nature conservation designations, for example Areas of Outstanding Natural Beauty (AONBs), SSSIs and World Heritage Sites (WHS) which would not usually be considered appropriate.” (§5.8.9)

8.2.1.5. "Both elements of the Exception Test will have to be satisfied for development to be consented. To pass the Exception Test it should be demonstrated that:

- the project would provide wider sustainability benefits to the community that outweigh flood risk; and
- the project will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall." (§5.8.11)

8.2.1.6. "Development should be designed to ensure there is no increase in flood risk elsewhere, accounting for the predicted impacts of climate change throughout the lifetime of the development. There should be no net loss of floodplain storage and any deflection or constriction of flood flow routes should be safely managed within the site. Mitigation measures should make as much use as possible of natural flood management techniques." (§5.8.12)

8.3. Flood Risk Assessment

8.3.1. Chapter 11 of the Applicant's ES [**APP/063**] addresses hydrology, flood risk and drainage, and is supported by a general flood risk assessment and drainage strategy at Appendix 11-1 [**APP-210**], and site specific FRAs.

8.3.2. The FRAs all downplay the flood sensitivity of the area despite historical records of fluvial flooding. The EA's fluvial flooding maps show that fluvial flooding is a risk in parts of all the sites, and the modelling, such as it is, shows the risks are considerable.

8.3.3. Each FRA concludes that the unmitigated flood risk is "negligible to low" in the studied area. However, as **F1** observes, the Applicant's fluvial modelling is flawed [**F1/§§25-29, 51**]. There are further flaws in the methodological approach to the FRAs. There is no assessment of the dynamic effects of flooding, contrary to NPS

EN-1 paragraph 5.8.15. Where the Applicant has performed more detailed modelling of flooding, the Applicant has failed to show how the model was used or how it was parameterised. Additionally, analysis of the photographic effects of Storm Bert in the area upstream of Corston show a flooding extent greater than that calculated by the model or shown on EA mapping [**F1/§32**; **F3**].

8.3.4. The FRA also fails to take into account the sensitivity of the catchment to rainfall [**F1/§§3, 49-50**].

8.3.5. Additionally, that flawed modelling does not appear to be effectively deployed in the Applicant's assessment. The Applicant's identification of a "low" risk of fluvial flooding appears to be on the basis that the Applicant has modelled a 0.1% AEP event which is, by definition, low probability (although the consequences severe) [**F1/§30**]. There is no explanation of how a rating of "low" is sensible derived. The Applicant ought to have modelled the normal design flood, a 1% AEP flooding event, which would have more accurately considered the reasonable worst-case scenario of the scheme. Equally, the Applicant's assessment of the consequences of a flood appears to be based largely on the likely impact to their own assets on site, without considering the likely downstream effects on nearby receptors.

8.3.6. Section 11.8 of Chapter 3 [**APP/063**] identifies the potential flood risk impacts of the scheme which were scoped into the Applicant's assessment. For the construction/decommissioning phase the primary risks arose from mud and debris blockages, a temporary increase in impermeable area for flooding, and the compaction of soils. For the operation and maintenance phase, the risks were associated with the permanent increase in impermeable area, increase in discharge to local watercourses, and blockage of drainage networks.

8.3.7. The Applicant relies almost entirely on the embedded risks of mitigation to remove flooding risk and the Applicant is over-optimistic in the likely effects of the proposed mitigation.

Solar Panel Runoff

8.3.8. Professor Skeffington's second paper ("**F2**"), address the increased risk of flooding at the site as a consequence of solar panel runoff. The ES acknowledges the risk that panels "*concentrate rainfall under the leeward edge of the panels themselves"* [**APP/063, 43**] but there is no adequate assessment of this risk. The Applicant asserts that maintaining grass beneath panels is sufficient mitigation.

8.3.9. In support of that statement, the Applicant relies on an outdated 2013 model by Cook and McCuen, which conducted an early review of the hydrological effects of solar models through a computer model, which was not validated by field measurements from real solar farms. As **F2** demonstrates, recent research, using observed data and improved models demonstrates that ground-mounted panels can lead to greater runoff volumes, higher flood peaks, and local soil erosion (as discussed in **Appendix K1)**.

8.3.10. In the case of this Scheme, the impact of solar panel run off is likely to be even greater. The larger panel size would mean that the rainfall concentration factor is greater than for conventional panels, making it even less likely that vegetated soils have adequate infiltration capacity to absorb the water. This would increase both peak discharge and the risk of soil erosion. Moreover, the height from which the rainfall runs off the panels, typically 30-40 cm, would be much greater for the tracking panels especially as they are intended to be kept horizontally 2.5 m above the ground surface outside generating hours. The kinetic energy of a water stream falling from 2.5 m is more than six times the same stream falling from 40 cm. This energy would be manifested as increased runoff and soil erosion.

8.3.11. The Applicant's proposed mitigation is overly optimistic. The only mitigation proposed for panel runoff is to maintain a vegetation cover under the panels. However, the high density of the panels proposed an the proposal to keep them

level all the time and thus shading the ground, will make maintaining a vegetation cover difficult, as **Appendix K1**, the Soil Report, discusses.

8.3.12. Likewise, the Soil Report and (**Appendix K1**) and the Soil Site Report (**Appendix K2**) note the sensitivity of the soil within the Order Limits to compaction. Compacted soils will exacerbate the ability of the soils to effectively drain or absorb solar panel runoff.

Increased Water Availability due to Reduced Evaporation

8.3.13. Professor Skeffington's fourth paper ("**F4**") addresses the likely observes that solar panels drives evaporation of water form land surfaces. As a consequence, there is an increase in soil moisture in soil sites, which results in the effective production of water and increases flood risk in wet areas. Professor Skeffington's conservative calculations suggest that an addition 233,000 cubic metres of additional water could be generated as a consequence of evaporation restriction at the Solar PV Sites [**F4, 1/§2**]. This additional water will ultimately leave the solar farm, either in surface runoff or groundwater or both. It will therefore increase the amount of water offsite.

8.3.14. The Applicant has failed to properly consider this increased flood risk, contrary to NPS EN-1, or any measures to effectively mitigate it. Covering a relatively high proportion of the area of small headwater catchments in a high flood risk district with outsize solar panels is unwise. Connectedly, the Applicant has failed to demonstrate that this will not cause an unacceptable flood risk both on and off site.

8.4. Sequential and Exception Test: Site Selection

Site Selection

8.4.1. The Applicant's site selection report identifies twelve sites as prospective solar farms for a grid connection at Melksham. Maps of these in relation to flood risk are show in Appendix A of Annex C in the Planning Statement. Most sites, including Lime Down, have an amber risk for both fluvial and surface water flooding. Site 12, however, has a green risk for fluvial flooding. IGP relies on the Exception Test to justify the site selected. As set out above, SLD considers that the Scheme does not meet the second criterion of the Exception Test, because the Applicant has not demonstrated the Scheme would be safe for its duration and there will be an increased flood risk arising from the Scheme [**F1/§§19-21**].

Site Design

8.4.2. The Applicant is required to apply a sequential approach at site level to the layout and design of the scheme to minimise flood risk. However, there are substantial areas of solar panels for Flood Zone 3, near the Gauze Brook upstream of Corston for Lime Down D [**F1/§17**]. Even where panels are raised higher above ground, such mitigation of the risk to panels may be insufficient. Photographic evidence of the area demonstrates that panels may be partially submerged if a weather event like Stom Bert were to happen again [**F3**].

8.5. Conclusion

8.5.1. The FRA fails to address many of the minimum requirements for a FRA under NPS EN-1. The FRA systematically underestimates flood sensitivity in the area, the risk to receptors, and flood risk. The Applicant's own modelling shows that an extreme rainfall event would be devastating locally and downstream due to fluvial flooding, whereas the assessment ignores the modelling and concludes that the risk of fluvial flooding is "low".

8.5.2. The assessment and proposed management of flood for the Scheme is poor, and reflects a site selection process which failed properly to have regard to Flood Zone 2 and Flood Zone 3 and the knock-on effects. The ExA can have no

confidence that this Scheme would not increase the risk of flood in an area already blighted by flood events.

9. Land Use and Soils

9.1. Introduction

9.1.1. SLD submits that there are good reasons for protecting the Solar PV Sites and Cable Route Corridor from development where the loss of valuable productive farmland has not been shown to be necessary. There has been insufficient justification for siting the Solar PV Sites and Cable Route Corridor on agricultural land, much of which is best and most versatile agricultural land ("BMVAL"). Likewise, the likelihood of long-term permanent soil damage is high and the Applicant has not proposed sufficient mitigation to remove these harms or consider the adverse effect low.

9.1.2. This chapter is accompanied by two appendices:

- **Appendix K1** Soils and Agricultural Impact Report (produced by Sam Franklin of Landscope)
- **Appendix K2** Soil Site Report (produced by Cranfield University)

9.2. Policy

9.2.1. Chapter 5 of NPS EN-1 addresses land use objections to renewable energy infrastructure. The most important policies for the purpose of this paper are:

9.2.1.1. "Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5) (Paragraph 5.11.12).

9.2.1.2. Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed. (Paragraph 5.11.13)

9.2.1.3. The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification.

Where schemes are to be sited on best and most versatile agricultural land the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. (Paragraph 5.11.34)

9.2.2. Chapter 2 of NPS EN-3 addresses solar photovoltaic generation specifically. The most relevant paragraphs are as follows:

9.2.2.1. “While land type should not be a predominating factor in determining the suitability of the site location applicants should, where possible, utilise suitable previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land avoiding the use of “Best and Most Versatile” agricultural land where possible. ‘Best and Most Versatile agricultural land is defined as land in grades 1, 2 and 3a of the Agricultural Land Classification” (Paragraph 2.10.29)

9.2.2.2. “Whilst the development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land, or sites designated for their natural beauty, or recognised for ecological or archaeological importance, the impacts of such are expected to be considered and are discussed under paragraphs 2.10.73 – 92 and 2.10.107 – 2.10.126” (Paragraph 2.10.30)

9.2.2.3. “It is recognised that at this scale, it is likely that applicants’ developments will use some agricultural land. Applicants should explain their choice of site, noting the preference for development to be on suitable brownfield, industrial and low and medium grade agricultural land.” (Paragraph 2.10.31)

9.2.2.4. “Where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions (for example, onshore wind generation, storage, hydrogen electrolysers) to maximise the efficiency of land use.” (Paragraph 2.10.32)

9.2.2.5. “The Agricultural Land Classification (ALC) is the only approved system for grading agricultural quality in England and Wales and, if necessary, field surveys should be used to establish the ALC grades in accordance with the current, or any successor to it, grading criteria and identify the soil types to inform soil management at the construction, operation, and decommissioning phases in line with the Defra Construction Code.” (Paragraph 2.10.33)

9.3. Food Security and Loss of Productive Agricultural Land

9.3.1. The United Kingdom Food Security Report 2024 observes that Russia’s invasion of Ukraine in 2022, alongside increased conflict in the Middle East, has disrupted international energy and grain supply. The latter has, in particular, disrupted the system by altering supply routes and the navigational safety of the Red Sea. Likewise, extreme weather conditions in the UK and across the globe, as a consequence of climate change, have caused food chain disruptions which even more localised impacts [**Appendix K1, 4/§3.3**]. Since that report was written, the insecurity of the global food network has become even more pronounced.

9.3.2. It is now more important than ever to for productive agricultural farmland to be protected from development and long-term decline. Far from taking farmland out of production for at least 60 years, efforts should be made to increase food production on agricultural land. Nonetheless, SLD acknowledge that, under NPS EN-1 and NPS EN-3, development on BMVAL is not prohibited. However, the Applicant is required to demonstrate that proposed development is not sited on agricultural land without justification, having regard to the availability of other poorer quality land. Appendix K1 concludes that the Applicant has not done so [**Appendix K1, 15/§6.1**].

9.3.3. The Applicant’s Agricultural Land Classification Mapping [**APP-172**], indicates that there is Grade 3a BMVAL across the Solar PV Sites. The Soil Site Report

prepared by Cranfield University notes that much of the land is appropriate for dairying, cereals, and stock rearing [**Appendix K2, Soil Thematic Map 1l, 24-25**]: Additionally, an extensive portion of the land comprising the Cable Route Corridor has a high probability of being BMVAL [**Appendix K1, 6/§4.2**]. Much of the land in the CRC has not been surveyed by the Applicant.

9.4. Livestock Grazing on Solar PV Sites

9.4.1. The Applicant's ES suggest at Chapter 17 that during the anticipated lifespan of the Scheme of 60 years, some agricultural use may resume within the Solar PV Sites if the area beneath the panels is grazed by livestock [**APP-069**].

9.4.2. Mr. Franklin's report considers that such grazing practices are unlikely to be tenable for most farmers, and those managing the Solar PV Panels [**Appendix K1, 7-8/§§4.7-4.13**]. Grazing around panels is unlikely to be cost-effective for any grazier and there is always a risk that animals may damage the panels. Land in use for solar panels is ineligible for most normal agricultural subsidies which likewise makes farming less financially attractive going forward.

9.4.3. Equally, Mr. Franklin notes that grass does not grow well under the panels themselves, as there are often areas which are either dry or barren, which will only host weed species due to heavy shading and patchy wetness [**Appendix K1, 8/§4.13**].

9.5. Damage to Soils during Construction and Operation

9.5.1. Soil is recognised to be a finite resource that fulfils many important functions and services for society [**Appendix K1, 9/§5.1**]. The soils located locally are mainly clay and heavy clay loam soils over clay at depth [**Appendix K2, Soil Thematic Map 1n**]. As the Applicant acknowledges, most of the topsoil and subsoils throughout the Order Limits are a resource of high sensitivity [**APP-**

243/§17.10.4]. The Soil Site Report demonstrates that many of these soils are very susceptible to compaction [**Appendix K2, 34-35**].

9.5.2. The use of heavy machinery can initiate the production of large clods and compaction in topsoils. This can have many negative effects on the quality of the sole for future arable production – including: poor germination and seedling emergence, impeded drainage, waterlogging, and anaerobic conditions all leading to increased susceptibility of the crop and root to diseases and pests and soil erosion [**Appendix K2, 35**]. The Soil Site Report further indicates that, in many areas, there is little potential for soil structures to recover from damage experienced after compaction [**Appendix K2, 38-39**] and that mechanical rectification will be difficult in many places.

9.5.3. SLD considers that the Applicant has not properly assessed the likely long-term impacts on the soils after construction and decommissioning. The Applicant erroneously suggests that taking the land out of production may improve the status of the land. In reality, in locations where soil compaction is a risk, construction of the Solar PV Sites and Cable Route Corridor is likely to cause permanent damage which cannot be remedied and is likely to affect the quality of the land in the future [**Appendix K1, 9/§5.5**].

9.5.4. To this extent, the Applicant has also been overly optimistic in the effectiveness of its proposed mitigation measures, and the measures imposed are unlikely to remove all of the likely significant effects. The ES identifies that the number of field capacity day is larger than average for lowland England, meaning that there are long periods in the year when construction and trafficking on the land should be avoided [**APP-243/§1.2.20**]. It is not realistic for such a construction project to only work outside of the 150 FCD period [**Appendix K1/§5.9**]. Additionally, poor construction practices cannot be easily controlled by condition on such a large-scale operation [**Appendix K1, 13/§5.18**].

9.6. Flooding

9.6.1. Connected to the risk of compaction, is the increased flood risk where water is unable to penetrate the topsoil. The Applicant's ES has failed to consider the impact of inserting piles into the ground and trenching works on drainage, and the likely reduction in agricultural soil quality. The Outline Soil Management Plan does not properly deal with these drainage issues [**Appendix K1, 11/§5.11**].

9.7. Conclusion

9.7.1. The Applicant has failed to provide a clear justification for the development of Lime Down Solar Park within the Order Limits. Much of the land is BMVAL, yet the Applicant has failed to demonstrate why this land is necessary for the scheme where poorer quality land is available elsewhere. Compounding this, the risk of long-term permanent soil damage is significant, and the mitigation proposed is wholly inadequate to address it.

10. Biodiversity, Ecology and the Natural Environment

10.1. Introduction

10.1.1. This section addresses the ecology and biodiversity impacts of the proposed Lime Down Solar Park. A report has been prepared by Nicholas Valori of Betts Ecology on behalf of Stop Lime Down, to comment upon the biodiversity and ecology findings presented within the Applicant's ES (**Appendix E**). The concerns set out below relate to the adequacy of the ecological baseline surveys, the Applicant's approach to mitigation, and the likely impacts of the development during both construction and operation across the Solar PV Sites and the Cable Route Corridor.

10.1.2. SLD notes that the Applicant has indicated that Chapter 9 will be updated following the completion of additional site surveys which have been undertaken. SLD awaits receipt of these and will seek to comment at a later date.

10.2. Policy

10.2.1. NPS EN-1 sets out the Government's policy in respect of ecology and biodiversity and the delivery of nationally significant energy infrastructure. Section 5.4 addresses biodiversity and geological conservation.

10.2.1.1. The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests (§5.4.18).

10.2.1.2. The design of energy NSIP proposals will need to consider the movement of mobile/migratory species such as birds, fish and marine and terrestrial mammals and their potential to interact with infrastructure. As energy infrastructure could occur anywhere within England and Wales, both inland and onshore and offshore, the potential to affect mobile and migratory species across the UK and more widely across Europe (transboundary

effects) requires consideration, depending on the location of development (§5.4.22).

10.2.1.3. Applicants should consider any reasonable opportunities to maximise the restoration, creation, and enhancement of wider biodiversity, and the protection and restoration of the ability of habitats to store or sequester carbon as set out under Section 4.6.(§5.4.33)

10.2.2. In respect of mitigation, NPS EN-1 provides:

10.2.2.1. “Applicants should appropriate avoidance, mitigation, compensation and enhancement measures as an integral part of the proposed development. In particular, the applicant should demonstrate that:

1.1.1..1. during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works

1.1.1..2. the timing of construction has been planned to avoid or limit disturbance during construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements

1.1.1..3. habitats will, where practicable, be restored after construction works have finished

1.1.1..4. opportunities will be taken to enhance existing habitats rather than replace them, and where practicable, create new habitats of value within the site landscaping proposals. Where habitat creation is required as mitigation, compensation, or enhancement, the location and quality will be of key importance. In this regard habitat creation should be focused on areas where the most ecological and ecosystems benefits can be realised.

1.1.1..5. mitigations required as a result of legal protection of habitats or species will be complied with.

10.2.3. In respect of Secretary of State decision-making, NPS EN-1 provides:

10.2.3.1. As a general principle, and subject to the specific policies below, development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable alternatives (as set out in Section 4.3 above). Where significant harm cannot be avoided, impacts should be mitigated and as a last resort, appropriate compensation measures should be sought (paragraph 5.4.42)

10.3. Assessment of the Ecological Baseline

Lack of species-specific surveys for the Solar PV Sites

10.3.1. The Applicant has not provided follow-up, species-specific surveys for brown hare, hazel dormouse, reptiles, harvest mouse, hedgehog, polecat or macro-invertebrates, particularly aquatic invertebrates such as white-clawed crayfish. When this omission was queried by the Secretary of State, the Applicant's position was that an adequate assessment could be undertaken on the basis of the habitats affected, rather than target species or population/ community surveys [**APP-181**].

10.3.2. However, it is not clear that the Applicant's approach complies with the core Mitigation Hierarchy (Avoid, Mitigate, Restore, Compensate) principles that underpin UK Ecological Best Practice. It significantly generalises the avoidance phase for a site of this scale to its broad habitat categories, prioritising instead subsequent Mitigation and Restoration. While proceeding under the assumption of presence of a protected species implies putting in place the highest mitigation measures possible for the identified species (*i.e*. higher than would be usually carried out following a standard species survey), in practice it is often not feasible to effectively detect, and thus avoid and mitigate ecological impacts without a suitably informed and detailed baseline on which to make appropriate decisions, monitor and resolve negative impacts in the long term [**Appendix E/§§19-20**].

10.3.3. Likewise, the effectiveness of mitigation and restoration measures is limited by gaps in knowledge of the current on-site ecosystem's status. As a result, the proposal has a significantly greater potential to cause harm to these protected species, while also lacking the means to effectively monitor and address in the long term any unexpected impacts to these species resulting from the development [**Appendix E/§19**].

Lack of species-specific surveys for the CRC

10.3.4. Save for possibly badgers, no species-specific surveys have been conducted in respect of the Cable Route Corridor. The Applicant's assumptions on species present in the CRC have been based on qualitative assessments of habitats undertaken to inform the Applicant's BNG, surveys carried out within the Solar Panel Fields, and desk-based assessments. Generally, the Applicant has given the explanation that, because of the "temporary and limited nature of impacts associated with cable route construction, with all habitat expected to be reinstated following a relatively short construction period… surveys for the CRC were not considered proportionate considering the potential impacts." As a consequence, the Applicant concludes that such species-specific surveys are not necessary or proportionate.

10.3.5. As for the Solar PV Sites, the Applicant's approach fails to properly give effect to the mitigation hierarchy within the CRC. In the absence of species-specific information, it is unclear how the Applicant will be able to effectively plan the cable route to avoid avoidable impacts to species (as they are required to do).It is not possible to make adequately informed secure decisions on the actual routing of the Cable Corridor, both from the Applicant's and the planners' perspectives, with the current lack of analysis of actual species data for these sections [**Appendix E/ §§22-28**].

10.4. Construction and Decommissioning Impacts

Road Widening and Boundary Features

10.4.1. Appendix E considers that the full extent of harm to the hedgerow network has been overlooked by the Applicant. While the Applicant acknowledges inevitable adverse hedgerow impacts when access is required into fields and with the creation of the new access points during construction, the Applicant has overlooked likely ecological impacts during road widening. Having regard to SLD's Transport Report [**Appendix D**], extensive road widening is likely for many roads across the Solar PV Site.

Cable-laying in the CRC

10.4.2. As cable-laying will be carried out through open trenches rather than through underground coring or similar, more indirect but expensive approaches, cable-laying will result in at least temporary loss of habitat and features directly above its trench lines. Extensive trenches such as these are also among the works most likely to conflict with wildlife features such as badger setts, mammal and bird nests, food resources, dormouse hedgerow corridors, etc. within the local landscape, due to the required overall length of the cable corridor.

10.4.3. While the 50m corridor width affords some leeway to avoid particularly high-value features at the design stage, and measures are scheduled to be included to avoid damages within sensitive areas such as designated sites, even in a best case scenario of like-for-like restoration, this phase of the works will unavoidably result in significant short-term habitat losses. Even when "temporary", large-scale trenching such as that proposed carries an inherently high risk of adversely affecting protected and vulnerable fauna, irreplaceable habitats and features above and below ground, which have been overlooked due to the great length and area of the work area.

10.4.4. SLD seeks clarity from the Applicant as to what methods would be used to determine at the final design and construction stages, whether a particular pathway is preferable over another, particularly in regard to identifying

ecologically sensitive habitats and features which may not be currently listed as specifically designated sites or within Public Records.

Likely Construction Effects on Species

10.4.5. The ES identifies potential adverse construction impacts to species arising from **[APP/061, §9.8.3]**:

- Habitat loss, for example the loss of hedgerows where existing field access points cannot be used or need to be widened, or clearance to facilitate permanent hardstanding;
- Killing and injury, arising out of habitat clearance and the actions of vehicles and plant during construction;
- Fragmentation of habitats as a consequence of habitat loss and habitat change, reducing the function of the habitats and impeding the ability of species to disperse and maintain a viable population;
- Disturbance to species, including through movement and vibration during construction operations and increased footfall;
- Pollution and habitat degradation through the release of chemical, sediment or dust pollution, interfering with the normal function of habitats and directly harming species.

10.4.6. The stated mitigation for all the species mentioned in the Applicant's reports is to focus on pre-clearance searches carried out by an ecologist shortly prior to works. Where any animals are discovered, works within the section are to halt until these have been successfully translocated. Pre-clearance searches alone are not an effective means of detecting and mitigating potential adverse impacts on all fauna.

10.4.7. Additionally, relocation of species is often a highly complex operation without certainty of outcome, particularly when operating without prior data on the site and species concerned. Receptor site identification and suitability, as well as the study of the individual species and populations concerned, are paramount.

Residual Effects Table 9-12

10.4.8. Within ES Volume 1, Chapter 9: Ecology and Biodiversity [**APP-061**], the Applicant provides a summary of the significant residual effects which they identify as arising out of the Scheme. The Applicant concludes that the majority of significant adverse effects identified in section 9.10 can be reduced to neutral non-significant effects. There are just two likely significant *adverse* effects reported for the whole scheme and they are confined to the construction and decommissioning phase, as specified in the Applicant's Table 9-12 [**APP/061/170**]:

Impact	**Proposed mitigation/enhancement measures and residual effects after mitigation**
Temporary loss of hedgerows within the Cable Route Corridor	Proposed creation and enhancement of considerable extent of hedgerows Adverse – significant at the local level in the short term. Neutral – not significant in the medium to long term
Displacement of ground-nesting birds (e.g. skylark) from Solar PV Sites	Provision of compensatory nesting habitat (permanent grassland, set aside); enhancement of foraging opportunities; targeted management under the Outline LEMP. Adverse – significant at local level (skylark) Adverse – significant at site level (yellow wagtail, corn bunting, grey partridge, quail)

10.4.9. Appendix E challenges these conclusions. Mr. Valori considers the likely impact of the loss of hedgerow to be at least medium term, being 3-5 years for standard hedgerow and proportionally much longer for a hedge with trees or one which has ancient attributes – the latter of which are effectively irreplaceable. Additionally, the scale of losses would be closer to at least district level impact, as opposed to local.

10.4.10. While Mr. Valori's report supports the enhancement of retained fields to allow for a greater number of skylark, he notes that these retained fields remain a limited fraction of the total area which will be deployed.

10.4.11. It is further noted that the Applicant's table does not include any assessment of the residual adverse effects during the construction and decommissioning phases for any other species. That assertion is surprising because, even with effective mitigation, it is very unlikely that all species harms will be avoided.

10.4.12. Further clarification is also sought from the Applicant as to the likely significant ecological effects following the construction phase, as distinct from the decommissioning phase.

10.5. Operation and Maintenance Impacts

10.5.1. Appendix E considers that during the operation and maintenance phase there will be likely adverse effects on the local population of species such as hares, which generally inhabit open swathes of grassland. Likewise, the fences installed for the scheme are likely to cause commute route disruption and exclusion of fauna from the Solar PV Fields.

10.6. Conclusion

10.6.1. The ecological evidence submitted by the Applicant falls materially short of what is required to support a safe planning decision. Species-specific surveys have not been carried out for a significant number of protected and notable species across both the Solar PV Sites and the Cable Route Corridor, and the Applicant's reliance on habitat-based assessments and reactive pre-clearance searches does not comply with the mitigation hierarchy that underpins the NPS. The likely impacts of road widening, open-trench cable-laying across 22km of the landscape, and the long-term effects of fencing and panel installation on open-

habitat species have not been adequately assessed. The application should not be approved in its current form, not least as in its current form it does not properly comply with the mitigation hierarchy.

11. Socioeconomics and Tourism

11.1. Introduction

11.1.1. Chapter 16 of the Applicant's ES presents findings of an assessment of the likely significant effects on socio-economics and tourism as a result of Lime Down Solar Park [**APP-068**]. The chapter identifies and proposes measures to address the potential impacts and likely significant effects on socio-economics and tourism during the construction, operation and maintenance and decommissioning phases of the Scheme.

11.1.2. SLD considers that the Scheme, by virtue of its scale and wide-ranging impacts, is likely to have significant adverse effects on the local population and economy, based on the evidence which has already appeared in the Examination.

11.2. Policy

11.2.1. The relevant NPS requirements specifically relevant to socio-economics and tourism are detailed in Appendix 16-1 of the Applicant's ES [**APP-240**].

11.2.2. Paragraph 4.1.5 of EN-1 provides that in decision making, the Secretary of State should take into account the potential benefits and potential adverse impacts of development proposals including their "contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits". Paragraph 4.1.6 goes on to state that the Secretary of State should take into account "environmental, social and economic benefits and adverse impacts, at national, regional and local levels".

11.2.3. Paragraph 5.13.2 of EN-1 outlines: "Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES."

11.3. Likely Impacts of the Scheme

11.3.1. SLD is not now in a position to fully identify the socioeconomic and tourism impacts of the Scheme. The Scheme, by virtue of scale and impacts, is likely to have significant effects on the local population and economy, which will be wide-ranging and diffuse in nature. The Relevant Representations received and the submissions made at the Open Floor Hearing provide good evidence of the concerns held by local residents and businesses regarding the effect of the Scheme on the local economy and tourism offer. SLD would note the following, by way of example:

11.3.1.1. Ashton Hawker: Mr. Hawker is a local resident with a long-established farm business in Hullavington. At the OFH, Mr. Hawker explained that his business purchases locally owned grain from a farm which has agreed for its land to be used in the Scheme. As a consequence, it will be difficult for Mr. Hawker to acquire sufficient grain for his livestock, which will impact his ability fulfil supply contracts for beef. This could have corresponding impacts on his business and redundancies are probable.

11.3.1.2. January Farrington: Mrs. Farrington operates a thoroughbred stud farm adjacent to Area D, alongside the Gauzebrook. West Park Stud Farm will be significantly impacted by the Scheme, with likely views of industrial infrastructure and moving tracker panels. The farm was purchased for its peaceful environment, open landscape and safe access, all of which are essential for broodmares and young stock. The introduction of permanent noise, movement, visual disturbance, dust, access disruption and flood risk will have adverse impacts on the young stock which Ms. Farrington rears at West Park Stud Farm. Insurance for staff and high-value bloodstock will become untenable and Ms. Farrington considers it likely that her clients will choose to not keep their valuable breeding stock in an industrialised environment.

11.3.1.3. Freddie Spickernell: Mr. Spickernell runs the Vine Tree, a historic pub which is popular with the local community as well as visitors who come to walk, enjoy lunch, and sit in the garden to experience the countryside. The Vine

Tree will be surrounded on all sides by panels from the Scheme, and every access route to the pub will be lined with industrial-scale solar panels, which will actively deter these visitors. If the pub is forced to close, many young people will lose a valuable source of first-time employment.

11.3.1.4. Alex Frost: Mr. Frost operates a stud business which employs 5 people directly and contributes hundreds of thousands of pounds each year to the local economy in veterinary bills, feed, staff wages and other contribution. Mr. Frost emphasises that independent veterinary and scientific evidence shows that industrial scale solar developments can cause serious welfare risks to horses, especially pregnant mares and foals. The Scheme will inevitable lead to the closure of stud farms, an unnecessary loss of rural employment and reduced inward investment.

11.3.1.5. Isabel Ross: Ms. Ross manages a fourth-generation farm which breeds rare sheep. Her property is in the path of the Cable Route Corridor and Ms. Ross predicts that, as a consequence of the construction, she will have to cut her flock by up to 80% as a consequence of the loss of grassland. This will lead to a loss of farm income of, at a minimum, £20,000 per year.

11.3.2. SLD further notes that the Local Impact Report from Wiltshire Council is yet to be published, and SLD reserves its right to comment on the report when it comes forward. Nonetheless, SLD draws attention to the observations which have already been made by Wiltshire Council to date in respect of the likely socioeconomic and tourism impacts of the Scheme, which include a loss of £1.76 million per year of tourism spending during the construction phase, reducing to £395,000 per year once construction is completed [**RR-4934**, **§18.1**]. Having regard to the representations made by local residents at the OFH, as well as the necessarily diffuse impacts which will be experienced as a consequence of this scheme, SLD considers these estimates are likely to be a significant underestimation.

11.3.3. Wiltshire Council further observes that “whilst this development will help with the economic viability of a number of farm businesses, a significant number of other businesses will be impacted negatively and overall business activity in the area will fall” [**RR-4934**, **§18.12**].

11.4. Conclusion

11.4.1. SLD submits that the Scheme will give rise to significant and wide-ranging adverse socioeconomic and tourism impacts on the local area. The evidence of local residents and businesses, as presented in representations and at the Open Floor Hearing, demonstrates the breadth and severity of those impacts: from the loss of agricultural livelihoods to the undermining of the area's tourism offer. Wiltshire Council's estimates point to a loss of £1.76 million per year in tourism spending during construction alone, and SLD considers even those figures are likely to underestimate the true scale of the harm. SLD therefore submits that the Applicant has failed to adequately assess the socioeconomic and tourism impacts of the Scheme, and that those impacts weigh against the grant of consent.

12. Health

12.1. Introduction

12.1.1. Health is a cross-cutting issue for the Examination of the Lime Down Solar Park. SLD submits that the Scheme gives rise to significant and foreseeable health impacts, both through its effects on the everyday lives of local residents and through the risks posed by the proposed Battery Energy Storage System (BESS).

12.1.2. The following papers/reports are relevant to SLD's position in respect of the issue of health:

- Human health impacts of Lime Down Solar Park, by Dr. Claire Osmond (**Appendix I1**)
- Air Pollution Modelling from a Bess Fire at Lime Down by Professor Richard Skeffington and Professor Peter Dobson (**Appendix I2**)

12.2. Policy

12.2.1. NPS EN-1 recognises that energy infrastructure has the potential to impact on the health and well-being if the population. Direct impacts on health include increased traffic, air or water pollution, dust, and noise. It recognises that it may also have indirect health impacts, for example, if the infrastructure affects access to key public services, transport, or the use of open space for recreation and physical activity (NPS EN-1, para 4.4.3). As a consequence, applicants are require to assess the effects of each element of a project and identify any potential adverse health impacts and any measures to avoid, reduce, or compensate these impacts.

12.2.2. Paragraph 4.4.8 of EN-1 notes that where an area is not subject to separate regulation (as is the case for example, air pollution), the Secretary of State "may

want to take account of health concerns when setting requirements relating to a range of impacts, such as noise."

12.2.3. The most recent version of the NPPF (amended 2024 and February 2025) promotes the preservation of healthy and safe communities. While the NPPF does not contain specific policies for NSIPs, its policies are relevant and may be given weight in decision-making. Chapter 8 observes that "access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature and support efforts to address climate change" (para103). It further emphasizes the importance of proactively seeking to "protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users" (para 104).

12.3. Human Health Impacts

12.3.1. Health is a cross-cutting issue for the Examination and SLD will highlight how many of the Scheme's impacts directly intersect with it. The way individuals enjoy the landscape, take recreation, socialise, and maintain a healthy life is inseparable from the area in which they live. The loss of visual amenity, alongside non-visual effects such as noise and vibration, will undermine the mental health and wellbeing of local residents. In addition, any reduction in access to green spaces or diminished use of recreational routes, whether as a consequence of construction or their settings having been adversely affected, will limit opportunities for physical exercise and everyday engagement with nature. These are essential to sustaining good health.

12.3.2. The following health impacts of Lime Down Solar Park are discussed in the paper of Dr. Claire Osmond:

12.3.2.1. Mental Health and Greenspace Loss: There is a body of mental health research which has found that greenspace is associated with population-level reductions in anxiety, depression, mood disorders, and mental illness.

Greenspace can help alleviate poor mental health by offering avenues for mindfulness and stress reduction [**3/§12**]. Here, hundreds of hectares of greenspace would be lost as a consequence of the scheme. Equally, the Scheme is likely to have greater landscape impacts due to the use of 4.5m tracer panels (see the Landscape and Visual Impact Report of Carly Tinkler). As a consequence, the scheme is likely to have an adverse effect on the mental health of the public [**5/§14**].

12.3.2.2. Health Impacts of Loss of Recreational Amenity: The LVIA Report (**Appendix B**, as summarised above) impacts on the highest sensitivity amenity receptors would experience significant adverse effects for all phases of the Scheme (**§9.2**) Reduced access to green spaces, diminished enjoyment of local routes, and the industrialisation of a previously tranquil environment all have well-established impacts on mental health and wellbeing. Any degradation of PROW or the wider landscape setting will directly affect people's capacity to maintain healthy routines which involve exercising in the setting of the Scheme.

12.3.2.3. Community Isolation: The scale of the development risks physically and socially fragmenting local villages, making routes between communities less pleasant and usable. This could increase loneliness and isolation, particularly for those who depend on these routes for social contact.

12.3.2.4. Health Impacts of Noise: There is a growing body of research which links environmental noise exposure to increases in blood pressure and cardiovascular ailments. A study published in 2022 showed significant pooled associations between high noise annoyance and general mental health problems, as well as diagnoses of depression and anxiety disorder, and general mental health [**7-8/§21-25**]. The Acoustics Report (**Appendix H**), observes that significant changes in noise level and character are anticipated by the Scheme, and it follows that there may be corresponding health effects.

12.4. Air Quality, Major Accidents and Disasters

12.4.1. BESS thermal runaway events, or “fires”, can release a wide range of toxic gases. The Lime Down ES includes a model assessment of the likely concentrations and effects of a BESS fire at Hullavington in the Lime Down Scheme. The topic is covered in Chapter 15 of the ES [**APP-067**]: methodology in **§15.6.30** et seq. and results in **§15.10.36** et seq. Appendix 15-2 [**APP-239**] covers the methods and results of modelling in more detail, Figure 15-5 maps the modelling area [**APP-166**], and there is an outline Battery Safety Management Plan [**APP-286**]. The assessment concludes that concentrations of all the gases modelled are insignificant and not harmful to health at the closest receptors.

12.4.2. **Appendix I2** is a paper completed by Professor Richard Skeffington and Professor Peter Dobson which reviews the conclusions of the Applicant’s modelling of the consequences of a BESS Fire at Lime Down. The paper concludes that the Applicant’s model assessment is seriously flawed, arising from questionable model assumptions, incorrect use of pollutant standards, and poor model implementation.

12.4.3. In summary, the principal issues identified with the Applicant’s assessment are identified as follows:

12.4.3.1. It is assumed that only one model container will catch fire, and there will be no spread to other containers. This ignores experience from other BESS fires, and a reasonable worst-case assumption requires that the fire will spread to all 270 battery containers.

12.4.3.2. The assessment is artificially restricted to a spread distance of 1 km, whereas a pollutant plume from a BESS fire is likely to spread much further, as shown for instance by the fire in a similar-sized BESS in California in 2025.

12.4.3.3. A more realistic assessment based on a 5 km spread would put many more receptors at risk, including nine villages, three primary schools and the M4.

12.4.3.4. Workplace exposure standards are wrongly used to assess the effects of particulate exposure, whereas there are ambient standards which could be used.

12.4.3.5. Pollutant concentrations were not assessed at the closest receptors, which include the main line railway to South Wales.

12.4.3.6. Particle concentrations were assessed using a diesel fire as a model, whereas there are data available to allow assessment using lithium-ion battery fires. This has led to an underestimation of particle concentrations by a factor of 2.5 to 4.6.

12.4.3.7. Not every potentially serious pollutant has been assessed, including very fine particles and heavy vapours.

12.4.4. **Appendix I2** therefore demonstrates that the Applicant's modelling is not reliable as it does not present a reasonable worst-case assessment of the likely significant environmental effects of this aspect of the proposed development at Lime Down.

12.5. Conclusion

12.5.1. For the reasons set out above, SLD submits that the Scheme gives rise to serious and inadequately assessed health impacts. The loss of greenspace, recreational amenity, and community connectivity, combined with noise impacts, will have a material effect on the mental health and wellbeing of local residents in an area where anxiety levels are already above the national average. In addition, the Applicant's modelling of the risks posed by a BESS fire is seriously flawed and cannot be relied upon. A realistic worst-case assessment would place nine villages, three primary schools, and approximately 10,000 people within range of toxic emissions. SLD therefore submits that the health impacts of the Scheme have not been properly evaluated, and that the Examining Authority should require the Applicant to address these deficiencies before any decision is made.

13. Climate Impacts

13.1. Introduction

13.1.1. A key justification for the Scheme is its contribution to decarbonisation of the Grid. While it is accepted that the Scheme is renewable generation attracting the relevant policy weigh, the Applicant also ascribes distinct weight to that decarbonisation in the planning balance. For that reason, it is pertinent to address the decarbonisation that the Scheme provides for, and to note the effect of the specific design of this Scheme (given its very lengthy 400kV cable and 1000MWh BESS). This is a Scheme which, either, only breaks even against the Grid long after the net zero date in 2050, or does not do so at all.

13.1.2. The University of Derby have been commissioned by SLD to prepare a report on the generation and greenhouse gas emissions ("GHG") emissions of the Scheme. The report is authored by Chris Sansom, Heather Almond, and Zaharaddeen Hussaini and is listed at Appendix J1. There is also a paper produced by Professor Skeffington related to rainfall and climate change adaptation. That is listed at Appendix J2. Save where is identified, references in this section to a page or paragraph number is to the University of Derby report.

13.2. Policy

13.2.1. GHG emissions are addressed in section 5.3 of NPS EN-1. It notes the benefits of decarbonisation (paras 5.3.1 and 5.3.3), and explains that an applicant is expected to conduct a whole life cycle GHG assessment (para 5.3.4). The policy explains that the assessment should be used to drive down GHG emissions at every stage to ensure that they are minimised as far as possible (para 5.3.5).

13.2.2. For SoS decision-making, the SoS must be satisfied that GHG emissions have been assessed as far as possible (para 5.3.8), and that all reasonable steps have been taken to reduce GHG emissions (para 5.3.9).

13.2.3. Of emissions themselves, the SoS is directed to give weight to project that embed nature-based or technological processes to mitigate or offset GHGs. However, the SoS must accept that there are likely to be some residual emissions from construction and decommissioning (para 5.3.10).

13.2.4. Para 5.3.11 addresses energy schemes which emit GHGs. For such schemes, emissions are not a reason to prohibit consenting, and such emissions are managed in an economy-wide manner (para 5.3.12). As a result, the SoS does not need to assess individual applications against operational carbon emissions and their contribution to carbon budgets, net zero and international climate commitments (para 5.3.12).

13.2.5. As to climate change adaptation and resilience, this is addressed in section 4.10 of NPS EN-1. New energy infrastructure must be "sufficiently resilient" (para 4.10.1). The policy notes the "likelihood of increased flooding… and intense rainfall events" in the future (para 4.10.2). Adaption is required as a result. It goes on to explain that "New energy infrastructure will typically need to remain operational over many decades, in the face of climate change". Thus direct and indirect effects must be considered (para 4.10.8). As a result, applicants should assess impacts on and from their project across a range of climate scenarios (para 4.10.10) and demonstrate a high level of climate resilience (para 4.10.11). Safety critical elements should be assessed on a credible maximum scenario (para 4.10.12). The SoS must be satisfied that applicants have "taken into account the potential impacts of climate change" (para 4.10.13).

13.3. Lifecycle Greenhouse Gasses

13.3.1. The report considers the lifetime effects of the Scheme, considering two key scenarios measured against the estimated grid baseline emissions figure for 2029. It should be noted that, for this part of the assessment, the grid emissions intensity for 2029 is applied for the entire remainder of the life of the Scheme (so it is assumed there is no change). The first is a levelized approach which

averages the carbon intensity of the Scheme across its life, whereas the event-based approach identifies the cumulative GHGs avoided on a year by year basis **[8/3.3]**.

13.3.2. The outcome of this analysis, using the Applicant's figures, is that the point at which the "avoided" emissions arising from the Scheme surpass the lifetime emissions of the scheme itself on a levelized approach is 2075 (for fixed panels) or 2078 (for tracker panels). That is in the region of 45+ years into the life of the Scheme **[9/3.4.4]**.

13.3.3. Similarly, using the Applicant's figures, the point at which the "avoided" emissions arising from the Scheme surpass the lifetime emissions of the Scheme itself on an event based approach is 2062 (for fixed panels) and 2070 (for tracker panels). That is in the region of 33+ years into the life of the Scheme **[12/3.5.4]**.

13.4. Whole-life carbon assessment

13.4.1. The report also provides a review of the quantification of GHGs by the Applicant. It notes that the Applicant has underestimated emissions in relation to cable materials, concrete and civil works, construction plant fuel, SF6 initial fill, and non-transformer substation scope **[13/4.3.1]**.

13.4.2. By far the most significant change is the embedded carbon in the construction phase (but also generally) related to cables (most notably the 400kV cable). While the Applicant assessed 876 tCO2e, the report identifies 20,762 tCO2e as a result of the cable. Around 60% of this is devoted to the 400kV cable itself, which has a carbon intensity per kilometre of 587 tCO2e **[14/4.3.2]**. Taken with the additional required concrete and construction plant fuel, the revised figures (using the Reports "base" rather than "high" case) is 263,565 tCO2e compared to the Applicant's 237,149 tCO2e (an increase of around 10%) **[14/Table 7]**.

13.4.3. As to the operational phase, the increase is relatively small (on the reviewed base case representing an increase of 6,755 tCO2e) **[16, Table 8].**

13.5. Grid intensity

13.5.1. As a final step, the Report considers counterfactuals where the Grid GHG intensity is not set at the figure for 2029 for the life of the Scheme. The Report explains that a constant grid factor avoids the circularity problem that can arise when a single project is tested against a future grid patheway, however it has the problem of possibly overstating long-term avoided emissions if presented as a 60 year forecast (as here). Thus, a time-varying grid average has benefits as a stress test **[17/5.2]**.

13.5.2. The difference can be described in this way – (1) a constant grid intensity test answers the question: how long would the Scheme take to offset its whole life carbon if each exported kWh displaced a fixed grid intensity? Whereas (2) a time-varying test answers the different question: is the Scheme's whole life carbon intensity clearly ahead of the official decarbonisation grid pathway over the 60-year life? **[17,5.3]**.

13.5.3. For the former test the 2029 figure of 49 gCO2e/kWh and the 2030 figure of 45 gCO2e/kWh is used, for the latter the recognised Department for Energy Security and Net Zero figures for intensity over time is used **[17/5.4]**. The result is as follows:

Table 10: → Scenarios for varying grid-intensity counterfactuals

Energy case	Scenario	Lifetime avoided (tCO2e)	Net vs applicant (tCO2e)	Net vs base (tCO2e)	Net vs high (tCO2e)	Payback applicant (in year)	Payback base (in year)	Payback high (in year)
Fixed	49 g constant	1,188,994	255,849	222,683	213,788	2075	2077	2077
Fixed	45.1 g constant	1,094,360	161,215	128,049	119,154	2079	2081	2082
Fixed	DESNZ grid average	193,533	-739,612	-772,778	-781,673	Never	Never	Never
Tracker	49 g constant	1,126,558	193,413	160,247	151,352	2078	2080	2080
Tracker	45.1 g constant	1,036,893	103,748	70,582	61,687	2082	2084	2085
Tracker	DESNZ grid average	183,371	-749,774	-782,940	-791,835	Never	Never	Never

13.5.4. As is apparent from the above, depending on the scenario chosen (and applying the levelized approach), it is either late in the lifecycle of the Scheme, or never, that the Scheme ultimately meets carbon payback.

13.6. Rainfall amounts used in the climate change review

13.6.1. In respect of the Applicant's climate change risk review, Prof Skeffington's paper identifies that an inappropriate location for the measurement of precipitation is used (Yeovilton, 68km from Lime Down) **[1/1]**. Such an approach risks underestimation, as that paper identifies a gridded average for the Scheme which is around 14% higher than the figure used **[2/6]**. Alternatively, data assessed at the Royal Agricultural College at Cirencester would have been more proximate (23km) and have had much closer location characteristics **[2/7]**. As a result the risk review likely underestimates risk and should be reassessed to meet the requirements of policy **[3/10]**.

13.7. Conclusion

13.7.1. It is clear from the University of Derby's report that the carbon payback for the Scheme is late in its lifetime (if at all). While that does not detract from the in-principle policy weight for renewable energy generation (set out in NPS EN-1), insofar as the Applicant makes a separate argument about the contribution of the Scheme to GHG reduction, it is pertinent to have in mind. It is also important to recognise the embedded and operational GHGs in the proposal. It is apparent from the report that much of the GHGs of the Scheme come from its BESS, and that the Applicant has underestimated the relevant figures.

14. Cumulative and In-combination Effects

14.1. Introduction

14.1.1. When considering a Scheme of this scale, it is important having identified a large number of adverse environmental effects to take a step back and consider how they interact. This is because anyone experiencing this Scheme, if consented and built, and be they residents or visitors, would not experience the above environmental and other effects in isolation. Rather, they would be experienced in combination, establishing an overall impression of how the Scheme has changed this part of the Cotswolds. They would also be experienced cumulatively not only intra-Scheme (because of the disaggregated approach spreading development over five principal sites and a cable route), but also inter-scheme with other local development including other solar farms. For many who travel this area in their daily lives and jobs, it will also be experienced sequentially.

14.1.2. On its face, the Scheme appears not as one large single generating station, but as five approximately NSIP-scale schemes connected across the landscape and accompanied by the 400kV cable. By dividing up the Scheme, there is far more perimeter that individuals can come into contact with than an equivalent 500MW scheme built in one large block. For example, a person in Norton leaving by any of the principal routes out of that village would always come into contact with the Scheme and would experience a surrounding effect. A resident at the Grain Barn on Pig Lane would see their home surrounded to the North, East, South and West by solar panels. These are not changes confined to specific views or specific circumstances; they are wholesale changes for many sensitive locations and receptors.

14.1.3. It is a feature of the Applicant's approach to cumulative and in-combination effects that it underplays the interrelationship between such effect and how they function to almost stack. The Planning Inspectorate's Guidance "NSIPs: Advice on Cumulative Effects Assessment" recognises that "separate consideration may be needed for the accumulation or inter-relationship of these effects on an

individual set of receptors". SLD agrees that this accumulation on receptors is key; it is that accumulation which gives rise to the concern of industrialisation. And it is that accumulation which will be experienced by residents and visitors.

14.2. Policy

14.2.1. NPS EN-1 is clear that assessment must include "direct effects and any indirect, secondary, cumulative, transboundary, short, medium and long-term, permanent and temporary, positive and negative effects at all stages of the project" (para 4.3.3). It goes on that the SoS "should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy or community as a whole, even though they may be acceptable when considered on an individual basis with mitigations in place" (para 4.3.19).

14.2.2. A number of the policies recognise how specific types of asset may be particularly susceptible to a change in overall character due to cumulative and in-combination effects on the "wider historic landscape" (para 5.9.9) or cumulative effects on understanding the effects on the landscape character as a whole (paras 5.10.16-5.10.17). While assessment of landscape and visual effects of such schemes is likely to be the same as other infrastructure, NPS EN-3 recognises that solar farms are "likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure" (para 2.10.94). Such cumulative landscape effects are particularly identified in EN-3 para 2.10.157.

14.2.3. The requirement to assess cumulative effects reflects the requirement to identify and assess any such likely effects in the EIA Regulations (regs.1 and 3, and Schedule 4 para 5).

14.3. Scene setting

14.3.1. The Cotswolds are of national significance and one of England's premier destinations for tourists and holiday makers. It is a national asset which should be preserved, with a characteristic landscape beauty (recognised by SLD's landscape expert to include but also extend beyond the Cotswolds National Landscape itself into its setting).

14.3.2. The area chosen for the Scheme is characterised by big skies and gently rolling landscapes of sweeping views, low hedges and sparse woodland. The human footprint is equally delicate, defined as honey-hewed limestone villages, dry stone walls and a notable absence of industrial estates and high-voltage infrastructure. Tall structures are limited to traditional church steeples, water towers and farm barns, preserving a skyline free from industrial intrusion. This results in a rare sense of tranquillity further enhanced by the lack of aircraft noise, light pollution and sparse number of high-voltage overhead cables. This makes the location a premier destination for walkers, cyclists and holiday makers who frequent its extensive network of footpaths and bridleways.

14.3.3. On the other hand, the area lacks the infrastructure it would need to accommodate any major developments. The waterways are prone to rapid flooding, impacting travel and local properties. The narrow and meandering rural road network is ill-equipped for traffic to pass safely and verges deeply rutted. Negotiating these routes is often precarious, with footpaths and cycleways non-existent.

14.3.4. The remarkable effect of the Scheme is reflected in the responses that have already been received at OFH1 but also in the approximately 5,000 relevant representations. From an SLD analysis of those representations (and accepting that categorisation of complaints can be difficult), the following concerns and issues were the most frequently mentioned:

The concerns/issues mentioned most frequently	Frequency
Impact on landscape and proximity to National Landscape	2,775
Food security and loss of farmland	2,389
Impact on ecology and biodiversity	2,266
Increased traffic, road congestion and road safety	2,216
Size and scale of the proposal	1,244
Alternative sites, locations and technologies	1,196
Tourism, hospitality and retail employment	1,014
Flood risk	1,011
Noise and loss of tranquillity	1,098
Industrialisation	1,091

14.3.5. The wide range of issues is reflective of the fact that residents and visitors will experience effects in many varying ways. The use of words such as “industrialisation” is also indicative of a theme of many of the effects combining together; for example, the BESS does not industrialise simply because of its visual impact. It is also its incongruous and (relatively) loud electrical noise, the uncharacteristic nature of the installation compared to the rest of the landscape setting, the health and safety concerns of locals, and the mitigations surrounding the installation which themselves have adverse effects, the damage to the setting of Grade 1 heritage assets, and impacts on the routes going to and from that location all contribute to this effect. Industrialisation is not indicative of one effect but the in-combination results of many effects.

14.4. Appendixes to this Written Representation

14.4.1. In the reports which are appendixes to this Written Representation, SLD’s experts have given their views on the in-combination and cumulative effects of the Scheme. Without attempting to traverse all of them, and as an example addressing traffic in detail, the following are particularly pertinent.

14.4.2. Appendix B (landscape and visual effects) in section 12 concludes that the effects would be "greater and higher" than the LVIA predicts (**[Appendix B/108/12.2]**). Much of this stems from disagreement more broadly by that Report with the LVIA. An important aspect of that is the focus on intervisibility and the failure to consider other relevant effects (noise, disruption, pollution, experiential etc) **[Appendix B/108/12.7]**. It also fails to consider properly sequential views which are experienced by people travelling the area (including when you arrive in the area at your residence) **[Appendix B/108/12.8-12.9]**. The Report notes how this is "amplified by the Scheme Design Parameters providing for the general use of tracker solar panels up to 4.5m above ground level" **[Appendix B/109/12.15]**. It is important to recognise, as GLVIA3 does, that non-significant effects can become significant when combined and experienced as a whole. The report concludes that both intra-project and inter-project effects would be significant **[Appendix B/109/ 12.17]**.

14.4.3. A particularly important effect is the cumulative transport effects, as identified by SLD's transport expert and recorded here. In respect of intra-scheme effects, the Applicant fails to assess the in-combination effects of construction on the solar array areas and construction of the cable route. It is apparent from Table 13-9 of **[APP-233]** that such works would be undertaken at the same time. While the Applicant argues that "The majority of routes for the construction of the Cable Route Corridor use different parts of the highway network for the construction route for the Solar PV Sites" (**[PDA-009]**, p.925) this does not reflect the reality.

14.4.4. Figure 13-2 of **[APP-147]** shows the section of the cable route corridor accessed via Junction 18 of the M4 and through the Cotswolds National Landscape occupying areas between Lime Down A, B, C and D, both north and south of the railway line, extending south past Grittleton and across the M4 and further south to a point north of Yatton Keynell. The section of the cable route corridor that shares a construction route with Areas A, B and C of the solar arrays therefore has a length of around 8km. This is more than a third of the total cable

route. The applicant's statement that different parts of the highway network are used is therefore incorrect and does not reflect the evidence in the ES.

14.4.5. The Applicant has not identified where the solar array and cable route impacts will combine and has therefore failed to undertake a robust assessment of transport environmental impact. Given that the cable route corridor is predicted to generate around 10,000 HGV deliveries (around 77% of the predicted solar array construction trip generation) and there is clear evidence that the same, sensitive, sections of the highway network are relied upon for construction access, this omission is significant.

14.4.6. Information set out in SLD's Transport Written Representation (**Appendix D**) shows that the effect of assessing the cumulative impact of solar array and cable route construction, on the basis of the Applicant's own estimate of trip generation, is to increase the daily number of HGV movements through the CNL from 50 to 66, an increase of 32% in magnitude of impact. This increases the significance of the Scheme's adverse transport environmental impacts on the highly sensitive CNL.

14.4.7. Of committed developments, the Applicant has not taken into account any committed developments in deriving background traffic flows on the local highway network. Traffic survey flows have been factored to a 2028 baseline using TEMPro growth factors for Wiltshire. There are several large development sites that are likely to affect traffic flows in the area during the construction period (2028-2030).

14.4.8. Proposed development north-east of Junction 17 on the M4: Planning application PL/2025/02425 is for approximately 50,000sqm of flexible B2/B8 use with the amount of B2 capped at 33% on land immediately to the north-east of Junction 17 of the M4. Both construction traffic and operational traffic will use Junction 17 and the section of the A429 immediately to the north of this junction. The planning application is yet to be determined but the latest decision date is

identified on the Wiltshire Planning portal as 15 May 2026. It is therefore possible that the application will be determined in the near future. The size of the development and the potential level of trip generation associated with it during both construction and operational phases suggests that it should have been considered as a potential cumulative scheme.

14.4.9. Dyson Employment at Hullavington Airfield: Planning application 18/08271/OUT that is approved (although it appears that the permission expired in 2022) is for 44,150 sqm GIA of research and development and ancillary development at Hullavington Airfield. Although the planning permission has expired, National Highways required that the transport work supporting the development north-east of Junction 17 take account of the Dyson development. It therefore appears likely that National Highways would require the Applicant to adopt a similar approach.

14.4.10. Proposed Works at Junction 17 of the M4: A scheme is proposed to upgrade Junction 17 of the M4 (see https://www.wiltshire.gov.uk/article/6356/Junction-17-M4). A contractor has been appointed and it is possible that work could commence in 2027. The scheme involves the complete signalisation of the junction, widening of approach arms and widening of the bridges over the M4 from two to three lanes. This is likely to involve the replacement of the bridge decks. The works are likely to lead to disruption for a period of time that could affect Scheme construction traffic by introducing delays. The works themselves will generate construction traffic that will add to Scheme construction traffic if the schemes are progressed simultaneously. If the schemes are not simultaneous, they would lead to successive impacts affecting the local area.

14.4.11. Transport cumulative effects overall have not properly been assessed both within the Scheme itself but also with other local planning applications and proposed works.

14.4.12. As to Appendix F (flooding), it seems clear that solar panel installations make the ground wetter, the possibility of cumulative effects should be considered. On the same site, effects may accumulate over time if the additional wetness raises the groundwater level sufficiently for it not to return to baseline during the Summer and thus starts the following hydrological year at a higher level. Flood risk may then increase over several years from its initial value. Another somewhat longer-term possibility is that the nature of the wetted soil changes so that it becomes less permeable or retains water for longer. Both these will increase flood risk. Whether these effects actually occur will depend on site conditions.

14.4.13. Inter-site cumulative effects will occur when several solar sites drain into the same river system. Each site will increase the volume of water in the shared drainage. Flood risk assessments need to consider the additional volume from a proposed new site constitutes an unacceptable flood risk. Unlike the on-site effects, the increase in volume does not depend on site conditions but will occur in almost every case, the only exceptions being where discharge is exclusively to groundwater.

14.4.14. Appendix G (glint and glare) notes that the significant size of the Scheme is a particular reason to require cumulative assessment of glint and glare effects. It is not appropriate, as Pager Power has done, to assess the Scheme's 563 hectare panel footprint on a per-array basis. This fails properly to consider the sequential and surrounding effects of the Scheme **[15/7.2]**.

14.4.15. Appendix H (health) already sets out the cross-cutting issues of health. The loss of green space and enjoyable outdoor experiences, along with noise and other factors, come together both at home and out in the countryside as a negative effect on residents and visitors alike.

14.4.16. Part of the reason for such wide-ranging in-combination effects is the propensity for the Scheme to have in-combination intra-Scheme effects. Because it is broken up into five sites, each close to or capable of being NSIPs in their own

right, the 10km x 5km general area occupied by the scheme has a sense of being multiply developed for solar. The sense of not being able to get away from the Scheme is particularly apparent in such circumstances. The Scheme is a collection of relatively isolated islands of panels north of Norton taken with a 12km elongated snake of parcels near Sherston and finishing at Seagry Wood. SLD is in no doubt that a version of the Scheme which did not spread the development in this way would impact many of the most valuable aspects of this area far less than the proposal does.

14.5. The Applicant's assessment

14.5.1. The Applicant's assessment of effects is at **[APP-073]**. It is notable because every receptor identified at every stage of the lifecycle of the Scheme is identified as "effect interaction is not expected to increase the significance of effects" and that no additional mitigation is required. In the first place, SLD consider that is not credible on its face given the nature of the Scheme and some of the locations particularly impacted (e.g. Grain Store Barn, see below). Second, it is apparent that much of these conclusions arise from the underestimation of effects by the Applicant at other stages.

14.5.2. As a side note, column "Description of Potential Effects" in **[APP-073]** from p.50 is not understood as for various receptors it refers to "Lordswood Farm" where (among other things) RI061 onwards are in Norton.

14.6. Worked examples

14.6.1. It is useful to take three worked example, just to demonstrate the cumulation of effects. However, SLD consider this is an issue that impacts very many locations and receptors.

14.6.2. The first is Grain Store Barn, identified as not the subject of effect interaction expected to increase the significance of effects (RG020 in **[APP-079]**). In the construction and decommissioning stage, it is identified to have landscape and

visual effects at Major/Moderate adverse in construction, Moderate/Minor adverse in decommissioning, and noise and vibration between LOAEL and SOAEL. In the operational stage it is identified to have landscape and visual effects at Major/Moderate adverse at Year 1, Moderate/Minor adverse at Year 15, noise and vibration effects between LOAEL and SOAEL, and glint and glare effects at low.

14.6.3. Even on the Applicant's own case and assessments, there will be experiential disruption from not only visibility (which at times is significant in EIA terms) but also the noise of the Scheme, and glint and glare, emphasising the industrialised nature of this residential location. Coming and going from Grain Store Barn requires the passing of much more of the Scheme, emphasising the sense of being surrounded. Footpaths beginning close by to the Barn similarly take a person through the PV sites. The sense will be one of a complete change in character of the location from rural and agrarian to industrialised and energy generating. A proper exercise of judgment would recognise this effect and address whether mitigation is possible. This also is before the significant effects that SLD identifies are applied (and also the call in Appendix B to the Written Representation that an RVAA should properly be undertaken at the Barn **[102/10.4.27]**).

14.6.4. The second is Bradfield Manor, identified as not the subject of effect interaction expected to increase the significance of effects (RI068 in **[APP-079]**). The Applicant's assessment reports no relevant effects in the construction and decommissioning phase. In the operational phase landscape and visual effects at Moderate adverse are identified at Year 1, Moderate/Minor "neutral" effects at Year 15, and noise and vibration between LOAEL and SOAEL.

14.6.5. SLD consider this again fails to identify appropriate effect interactions. Even with the Applicant securing an (insufficient) approach to noise at this location, the Scheme will be just be a decimal point below a SOAEL effect (and this is before addressing the issues of background noise identified in **Appendix H**). This Grade

1 listed heritage asset, no longer surrounded by the agricultural holdings from which part of its significance is derived, would be in an incongruous landscape which SLD considers (Appendix C) causes significant Major/Moderate adverse harm to this asset. There is the inappropriate routing of HGVs and increase in traffic of 240% on Bradfield Cottages (**[Appendix D, 10/2.37, 28/5.2]**. In addition, Bradfield Manor is associated with a number of prominent PRoWs running to both Norton but also Bradfield Woods. The significant impact on these again gives the sense of being surrounded on the typical walks which would be experienced from this site. The effect is typical the sense of the industrialisation of a the setting of a dwelling and heritage asset of the utmost importance.

14.6.6. The third is WT/HULL/1, which is again identified as not the subject of effect interaction expected to increase the significance of effects (TP121 in **[APP-079]**. In the construction and decommissioning phase it is identified as having landscape and visual effects of Major/Moderate adverse during construction and Moderate adverse in decommissioning, with Minor adverse transport effects. No operational effects are identified in **[APP-079]**, although the Landscape and Visual chapter of the ES **[APP-060]** identifies Major/Moderate adverse at Year 1 and Year 15. It is noted that some mitigation measures are included in the Outline ProW and Permissive Path Management Plan **[APP-282]**.

14.6.7. This once again falls short. It is surprising that the change in the setting from the range of factors effecting this PRoW has not been taken into account. Not only are there significant adverse visual effects for the life of the Scheme, but this manifests in the form of a route (identified in the LEMP **[APP-084]**) with unshielded views to the west including towards the BESS and 400kV substation, and noise (assessed from the contours) as likely to be approaching the 52dB which the Applicant has identified as the likely maximum for PRoWs. It is hard to envisage how this combination of effects will not dissuade a person from using this PRoW in circumstances where each individual effect may not result in this. These are effects which will be felt on many of the PRoWs around the Scheme.

14.6.8. These worked examples are far from the only examples which could be set out. It is important to recognise though that, ultimately, the assessment of cumulative and in-combination effects is an exercise of judgment (see paras 21.4.2 **[APP-079]**). While the Applicant relies on its "professional judgment", given the evidence of SLD's experts, considering these locations on site visits, and applying even just common sense, the remarkable effect of industrialising these locations is obvious.

14.7. Conclusion

14.7.1. The cumulative and in-combination effects of the Scheme, when properly considered, accurately reflect why so many residents and visitors consider that the Scheme will industrialise the setting. Each environmental effect adds to that sense, building up the idea that this is no longer a rural and tranquil location but rather one devoted to generation. It is that combination of effects that SLD is particularly concerned about, and SLD consider it an error to dismiss such effects which are already well envisaged and (on a proper review of the evidence) well made out.

15. Planning

15.1. Introduction

15.1.1. SLD has instructed Marrons to produce a planning statement in respect of the Scheme. Marrons have reviewed the evidence that SLD has produced, and taken that into account in coming to conclusions on whether the Scheme should be granted development consent. That paper sets out the detail of Marrons consideration of that evidence, and its contents are not repeated here. Below, the conclusions reached by Marrons are set out in summary. The Marrons paper is at **Appendix A**.

15.2. Summary of conclusions

15.2.1. The conclusions reached by Marrons are threefold. First, they conclude that the Applicant has failed properly to engage with the mitigation hierarch such that the CNP Infrastructure presumption does not apply at all (NPS EN-1 para 4.2.14) **[61/§6.4]**. On the flat balance that applies as a result, they consider that development consent should be withheld.

15.2.2. Second, Marrons considered the position if the CNP Infrastructure presumption does apply. In those circumstances they identify that two of the factors that they have weighed substantially against the Scheme fall within an exception at para 4.2.15 of NPS EN-1: public safety and human health. As a result of the conclusions reached particularly in respect of traffic and transport, but also glint and glare, Marrons consider that exception applies. As a result, they consider again that development consent should be withheld **[70/§6.30]**.

15.2.3. Third, Marrons consider the position if the CNP Infrastructure presumption does apply, but also that an exception to that presumption does not apply. In considering this scenario, they note that there is a high bar to pass for the planning balance to indicate against the grant of development consent **[69/§6.29]**. However, considering their views as to the weighting of the relevant planning

considerations, Marrons concluded that this case was an exceptional one **[70/6.31]**. As a result, Marrons conclude that the SoS should refuse development consent **[70/§6.32]**.

15.3. Planning Balance

15.3.1. Below the planning balance table is extracted from the Marrons report and provided:

15.3.2. ***Table 4: Planning Balance***

Identified Impact	**Weight by Applicant**	**Weight by Interested Party**
Need for renewable energy infrastructure and contribution to electricity generation and security of supply	Substantial positive weight	Substantial positive weight
GHG emissions savings	Substantial positive weight	Neutral weight as benefits through GHG emissions savings are already implied by the need for renewable energy infrastructure.
Ecology and Habitats	Moderate positive weight	Moderate negative weight due to failure of the Applicant to demonstrate the proposed development would not result in significant adverse

		effects on habitats and species
Biodiversity net gain	Moderate positive weight	Limited positive weight
Connectivity improvements and enhancements – permissive paths	Substantial positive weight	Moderate positive weight. The benefit being delivered through the provision of new permissive paths is diminished by the environment within which they will be located.
Employment Generation	Limited positive weight	Limited positive weight
Economic Benefits	Limited positive weight	Limited negative weight
Landscape and visual effects	Landscape effects – moderate negative weight Visual effects - moderate negative weight Landscape and visual impacts are afforded moderate negative weight.	Landscape effects – substantial negative weight Visual effects - substantial negative weight Landscape and visual impacts should be afforded substantial negative weight for the

		reasons as set out in Ms Tinkler's report.
Agricultural Land	Moderate negative weight	Moderate negative weight
Tourism and Recreation	Limited negative weight	Great negative weight based on a combination of impacts on the local area including impacts on tranquility, the local highway network, and the landscape setting.
PRoW	Moderate negative weight in the planning balance when considered in isolation. However, on the basis that the visual and socio-economic effects on PRoW have already been considered in the wider weightings above for visual effects and effects on tourism and recreation, this	Limited negative weight. We agree with the Applicant's position that harms to PRoW are, in part, assessed through other topics. However, there remains a residual effect not fully considered elsewhere that the PRoW will attract less users, a negative weighting should therefore be applied.

	weighting should not be double counted.	
Air Quality	Neutral weight	Moderate negative weight arising from potential air quality effects from risk of BESS fire, which has not adequately been assessed or mitigated.
Woodland	Neutral weight	Neutral weight
Flood Risk and Drainage	Neutral weight	Significant negative weight. In line with the conclusions of Professor Skeffington, the Applicant's work has not demonstrated how impacts from flooding will be avoided or addressed. There are risks identified which are not mitigated.
Historic Environment	Neutral weight	Substantial negative weight due to multiple significant adverse effects on heritage assets, including on Grade I Listed Bradfield Manor and Fosse Way.

Soils	Neutral weight	Moderate negative weight
Noise and Vibration	Neutral weight	Significant negative weight due to the loss of very quiet background noise levels that are characteristic of the area and the Applicant not seeking to mitigate to below LOAEL.
Traffic and Transport	Neutral weight	Substantial negative weight
Resource and Waste Management	Neutral weight	Neutral weight
Water Quality and Resources	Neutral weight	Neutral weight
Ground Conditions	Neutral weight	Neutral weight
Glint and Glare	Neutral weight	Substantial negative weight due to impact of glare on sensitive receptors including potential persistent safety-related hazards.
Civil Aviation and Defence Interests	Neutral weight	Neutral weight
Battery Safety	Neutral weight	See Air Quality

Human Health	Neutral weight	Moderate negative weight

16. Comments on DCO

16.1. Introduction

16.1.1. With the assistance of its legal advisors, below SLD provide a table setting out comments on the current draft DCO **[APP-016]**. These are provided without prejudice to SLD's objection to the Scheme. Where appropriate, commentary is also provided on the current Explanatory Memorandum **[APP-017]**. Following on from the table below are submissions on discrete points arising out of the draft DCO (and the hearings held in April 2026).

16.2. Comments on the Draft DCO

Article/Req	Text (where appropriate)	Comment
Article 2(1)	"applicable period"	SLD note that, at ISH1, the Applicant indicated that it would bring further wording relevant to the interaction of commencement, the date of final commissioning, and the date of decommissioning. This was, in particular, related to commissioning of some parts of the Scheme before others. SLD understands that this will include provisions securing a phasing plan. Noting the concerns on the effect of the lifetime of the development raised at ISH1, SLD will comment on this new wording when it becomes available. (Note this is also relevant to various Requirements in Schedule 2)
Article 2(1)	"commence"	
Article 2(1)	"date of final commissioning"	
Article 2(1)	"date of decommissioning"	SLD note that, at ISH1, the Applicant indicated that it would bring further wording relevant to the approach to decommissioning

		in parts. Noting the concerns on the effect of the lifetime of the development raised at ISH1, and the comments in the next section below this table, SLD will comment on this new wording when it becomes available. (Note this is also relevant to various Requirements in Schedule 2)
Article 2(1)	"permitted preliminary works"	SLD have concerns about the scope of permitted preliminary works and whether any aspect of them can give rise to environmental effects (noting the intention at p.19 of the Explanatory Memorandum not to have such effects). Among other things, SLD have concerns that "preparation" in (c), "remedial works" in (d), and "site clearance" in (h) have scope to have such environmental effects. Additionally, SLD note that (e) permits the "laying of apparatus". The word "apparatus" is also defined in Article 2(1), and SLD notes that it includes "electricity cables". SLD consider that it must be made clear that "electricity cables" does not include those cables identified in Works No.1-10.
Article 6(3)	"any development or in the exercise of any functions"	It is unclear whether the wording provides for the removal of hedgerows outside of that provided for by Article 40(4). As such, it is suggested "Article 40(4) of the" is added after "authorised by" in the provision.

Article 7		SLD notes para 4.2.21 and 4.2.22 of the Explanatory Memorandum and notes (1) that this article is typically included in all solar DCOs; and, (2) that the provision is essentially included as a "model provision" which strikes a balance. SLD would welcome examination of whether the removal of the requisite protections does strike the right balance, albeit noting the typical position. It is noted that, while not just s.79(1)(g) is engaged in the Statutory Nuisance Statement **[APP-271]**, it is only that subsection which is identified for exclusion here. In the first instance, a more detailed explanation of this provision in the Explanatory Memorandum may assist in examination of this issue.
Article 17		This article provides a regime for discharge of water. On that basis SLD consider it would be appropriate for ss.106 and 118 of the Water Industry Act 1991 to be disapplied. Particularly in respect of the former, that right would appear to cut across the regime in Article 17. It is noted that disapplying s.106 should not disapply the reference to s.106 in Article 17(2) of the draft DCO.
Article 44	"difference"	SLD consider that the use of the word "difference" may be vague and cause

		confusion about its relationship with Article 47 and Schedule 16 (as, for example, disagreement with Wiltshire Council about discharge of Requirements might be understood to be a "difference"). SLD consider that, for the avoidance of doubt, a wording should be included to indicate that Article 44 is displaced by the specific regime in Schedule 16.
Article 47(4)	"six weeks"	SLD notes that the period of time applicable to the deeming provision in this Article is different to Schedule 16. SLD do not understand the basis for that difference and consider it should be the same unless a good reason is provided. SLD comment on Schedule 16 below.
S2, Req 4(3)	"first anniversary"	SLD suggest that this should be changed to "sixth anniversary". This is because a number of mitigation measures are either secured with a management timetable running for the first five years of the Scheme, or continuously for the life of the Scheme (so, including Year 6 onwards). See, for example, the Outline Landscape Ecological Management Plan – Annex A **[APP-283]**. SLD consider liaison is still important when (for example) mitigation measures are still becoming established. SLD accept that the need for liaison may reduce over the operational life of the Scheme. It considers the sixth anniversary

		strikes the right balance given the reasoning above.
S2, Req 4		For the same reason as applies at the construction phase of the Scheme, SLD consider that a community liaison group should also be secured for the decommissioning phase of the Scheme.
S2, Req 5(1)	"No part of Works Nos. 1, 2 or 3	SLD notes that this provision does not include Works Nos. 4-10 (save for Works No.5 which is the subject of a narrower provision in req 5(4)). SLD consider that all Works should be included in this provision to ensure that there is oversight of detailed design of all aspects of the Scheme. This includes Works No. 5, which should not be the subject of a more limited provision in Req 5(3). By comparison to this provision, the comparable provision in the three most recently consented solar DCOs is: • Springwell Solar Farm DCO: secures all works in the equivalent requirement except temporary construction and decommissioning compounds, and facilitatory highways works. • Fenwick Solar Farm DCO: secures all works in the equivalent requirement. • Helios Renewable Energy Project DCO: secures all works in the equivalent requirement.

S2 Req 5(1)	"(a) the layout; [etc]"	SLD also note that the details to be required are more limited than the list provided in recent DCOs, and invites the contents of this list to be examined and added to. For example, referring to the Springwell Solar Farm DCO, the following items were included in addition to those already in the draft DCO in this case: • Refuse and other storage units, signs and lighting; • Drainage, water, power and communications cables and pipelines; • Programme for landscaping works; • Security measures; and, • Any mitigation measure necessary to address noise impacts. Fencing is not included from the Springwell list as it is secured by S2 Req 10. It is noted that a number of these considerations already appear within the Design Principles and Parameters **[APP-269]**. See, for example, the parameters secured for CCTV in Works Nos. 6 and 7.
S14 Art 8(2)		SLD consider that any materials filed and served in the arbitration should be open and accessible to the public, unless ordered otherwise by the arbitrator, in line with the provision for public hearings in Art 8(1).

		While there is variance in the granted DCOs, this was the approach adopted in the Springwell Solar Farm DCO and the Helios Renewable Energy Project DCO and SLD considers the same wording should be used here.
S16		SLD note that the procedure for discharge is ultimately a matter for Wiltshire Council. However, among other things, it is noted that Article 2 provides 8 weeks to determine all discharge applications, and Article 3 provides only 10 working days for the Council to make requests for further information, and 5 days to commence consultations. Given the consequences of failing to comply are considerable (see e.g. Arts 2(4) and 3(4)), SLD consider that Wiltshire Council must be satisfied that the timelines provided in this Schedule are achievable (including in the case of a large number of discharge applications being made at once). SLD notes that, while Appendix 1 to PINS Advice Note 15: drafting Development Consent Orders does use 42 days in the exemplar text, para 19.2 of the note explains "Applicants should engage with the discharging authorities… for example to agree a proportionate timescale for discharge depending on the extent or complexity of

		detail reserved for subsequent approval". Thus, the matter is open to negotiation between the parties. It is noted that the Explanatory Memorandum at para 5.16.1 appears to assume that the period provided for in Article 2(2) is six weeks rather than 8 weeks.
S16 Art 2		SLD note there is a cross-referencing error in this Article, which appears to have arisen from the time to determine being listed at (2) rather than (1).

16.2.1. It is noted that, as local planning authority and primary authority which will discharge requirements, it is likely that Wiltshire Council will come forwards with further requirements for the DCO. SLD will consider these additional requirements as part of reviewing the published LIR, and is also open to discussions with all parties about additional requirements.

16.2.2. It is also noted that it is the DCO which secures the Design Principles and Parameters **[APP-269]**. SLD note that changes to those parameters could make a difference in avoiding or mitigating effects identified throughout this Written Representation. That might include securing smaller solar panels to attempt to mitigate effects (especially given the submission, at ISH1, that fixed 3.5m panels are more generative). SLD will consider the response to Written Representations provided by the Applicant and approach this issue accordingly.

16.3. Further Submissions Related to the Draft DCO

16.3.1. There are a number of further issues which SLD consider need to be addressed related to the draft DCO and the Explanatory Memorandum. These

concerns relate the operation of the statutory machinery provided for in the draft DCO.

16.3.2. Decommissioning of parts of the Scheme: SLD understands from discussions at ISH1 that the Applicant will come forward at Deadline 1 with an amended wording to the draft DCO addressing the situation where parts of the Scheme require to be decommissioned earlier than other parts of the Scheme. As has already been noted above, this raises questions related to properly securing the maximum life of the Scheme. However, it also raises questions related to the likely effects of the Scheme (and, in particular, the security that, if consented, the Scheme in its full form will come forwards for its lifetime).

16.3.3. SLD understands from ISH1 and the submissions made by the Applicant that, currently, the way in which the need to decommission part of the Scheme early could come about is as a result of it not being able to secure land rights from owners of Lime Down Sites A-E for the full lifetime of the Scheme. SLD understands from the Applicant's submissions at ISH1 that it cannot confirm that it has land rights to cover the full construction, operational, and decommissioning lifetime of the Scheme. Further, as rights of compulsory acquisition under the draft DCO are time limited, it will not have the ability to acquire further land rights if agreements to extend leases (etc) with landowners are unsuccessful.

16.3.4. SLD notes that it has not seen the wording of the provisions proposed to achieve this partial decommissioning. As such, it will reserve its full position to comment on that wording and address its effects. However, for the moment, SLD makes the following preliminary points.

16.3.5. Partial decommissioning of the Scheme in advance of the expiry of its 60-year operational period raises the issue that the ExA cannot be satisfied that the benefits of the Scheme are secured. That was a point identified by the ExA at ISH1 and is a consequence of the Applicant being unable to confirm that it can or will have the requisite land rights. Were part of the Scheme to be decommissioned

before the 60 years has passed, the amount of energy generation achieved would be less than is currently estimated in the Applicant's Environmental Statement.

16.3.6. While this in itself is an important point, SLD consider there is an even more critical issue. As is apparent from (e.g.) the Works Plans **[APP-007]**, various of the Works are not evenly distributed across the Scheme. For example, a significant portion of Works No.9 (securing habitat management areas) is included in Lime Down C. Were it the case that, as a result of difficulties with land agreements, Lime Down C required to be decommissioned after 30 years, those Works No.9 areas would be no longer secured. As a result, the environmental mitigations and enhancements therein secured would no longer be part of the Scheme and would be lost. That is critical, as it would mean the environmental effects of the Scheme would change, and it is likely that mitigation measures risk being lost which would make effects of the Scheme all materially worse in some way.

16.3.7. Both of the events identified in the last two paragraphs go to the heart of the consenting process in the EIA Regulations. Pursuant to those regulations, the obligation on the Applicant in its Environmental Statement (and the SoS when determining whether to grant development consent) is to identify and weigh the likely significant effects of the Scheme. Given the *Rochdale* envelope approach, those effects are measured on a reasonable worst-case basis.

16.3.8. In circumstances where the DCO has the power to decommission parts of the Scheme, and the Applicant cannot demonstrate that all of the Scheme is secured for its lifetime, the question of what are the likely significant effects of the scheme changes from simply the 60-year operational case to any case where decommissioning is required due to a land agreement failing (or, indeed, any other reason for decommissioning part but not all of the Scheme arising).

16.3.9. For those reasons set out in summary, SLD consider that it is important that the ExA are furnished with the information which allows it to conclude what is a

reasonable worst-case assessment of the lifetime of the Scheme. From that, it may then be possible to progress some form of assessment of the likely effects of that version of the Scheme (albeit it is noted that this information is not currently in the Environmental Statement). Without taking these steps, SLD consider there is a probability that the Environmental Statement will not identify the likely significant effects of the Scheme (and, as a result, the SoS not weigh them in the balance as part of the decision-making process.

16.3.10. At the ISH it was suggested that SLD was suggesting that the Applicant breach non-disclosure agreements with the relevant landowners. That was not the suggestion. Rather, SLD was recognising three things: (1) it is for the Applicant to set out the likely significant effects of the Scheme in its Environmental Statement; (2) the ExA must be satisfied by the Applicant that there is a proper basis to conclude the effects in the Environmental Statement are the likely significant effects of the scheme; and, (3) the Applicant is a party to the agreements with landowners and the party whose advisors joined in drafting those agreements. As a result, it is for the Applicant to positively demonstrate to the ExA the length of the land agreements. If the Applicant is bound by non-disclosure agreements, it has freely entered them, and it is for the Applicant to secure a release so that it can provide the requisite evidence to the ExA. If such release is not forthcoming, it remains the role of the Applicant to satisfy the ExA as to the reasonable worst case for the lifetime of the Scheme, and the significant effects as a result. In short, this is an absence of information, and the ExA (and SoS) need some security that they can lawfully conclude that the significant adverse effects of the Scheme have properly been described.

16.3.11. SLD will comment on this issue further once the proposed wording relating to decommissioning has become available.

16.3.12. Relationship between Works No.1 and Works No.2: SLD understand from discussions with the Applicant that, as a result of grid connection reforms with the National Energy System Operator (“NESO”), that the Applicant is currently the

recipient of an offer of a Gate 2, Phase 1 connection for the Works No.1[1] part of the Scheme (i.e. the ground mounted solar photovoltaic generating station) and a Gate 1 connection for Works No.2 (the BESS). That is in line with current NESO practice of only offering Gate 2 connections to BESS that (essentially) are well advanced through the design and planning process. Further details of the Connection Reforms process at NESO is available on the NESO website.

16.3.13. As a result, on the offers currently made to the Applicant, if accepted it will have the right to connect to the National Electricity Transmission System (i.e. the Grid) on or prior to 2030 in respect of Works No.1, but after 2035 (and with no set date) for Works No.2. The Applicant has indicated to SLD that it intends to make representations to NESO (if the Scheme is consented) so as to invite it to bring forward the date for the Works No.2 connection (as it is appropriate that a different approach is taken to co-located BESS). While this is noted, SLD is not aware of any evidence that this is the step that NESO currently plans to take.

16.3.14. SLD understands that this issue was intended to be addressed at ISH1 but time ran short. SLD makes the following two points in outline. When further information becomes available from the Applicant, it will provide additional submissions on the position.

16.3.15. First, NPS EN-1. Para 4.11.12 explains that the “Secretary of State should be satisfied that appropriate network connection arrangements are/will be in place for a given project”. It goes on to consider single or multi-link projects.

16.3.16. On the current evidence there are doubts as to compliance with this provision. What the Applicant says is a key part of the Scheme (the BESS) is likely to come forwards at a time years more distant that the generating aspects of the Scheme.

1.1.1. ———————————

[1] While framed by reference to Works No.1 and Works No.2, SLD is aware that the offer of a connection is not determined by reference to the draft DCO (and thus other works would come forwards as part of construction and connection). Defining this issue by reference to Works No.1 and Works No.2 is merely used as a useful shorthand.

Indeed, while there is the query of commencement of only parts of the Scheme (identified above), at a general level it is likely to be longer than 5 years from consent (which is used as a comparator because that is the stated life of the DCO itself without commencement). Given there is positive evidence of a Gate 1 offer, and NESO has not provided any guidance to indicate the connection may become available sooner, it does not appear that the Applicant can satisfy the Secretary of State to the appropriate level.

16.3.17. Second, it is noted (e.g. at para 3.1.6-3.1.9 of the Explanatory Memorandum to the draft DCO **[APP-017]**) that Works No.2 are considered to comprise associated development. Those paragraphs refer to the relevant April 2013 guidance of the Department for Communities and Local Government: "Guidance on associated development applications for major infrastructure projects" and (among other things) assert that Works No.2-10 are "all required to support the construction, maintenance and operation of the generating station, or to mitigate its impacts".

16.3.18. Para 5(i) of the Guidance identifies the following core principle (amongst four listed): that associated development requires "a direct relationship between associated development and principal development. Associated development should therefore either support the construction or operation of the principal development, or help address its impacts".

16.3.19. Given, currently, there appears to be a disconnect between the connection date for Works No.1 versus Works No.2 (in the order of years), it would suggest a similar disconnect between the principal PV generation aspect of the Scheme and the BESS. That, it would appear, calls into question the "direct relationship" between principal development and associated development. Rather, it suggests the BESS is independent development located in the same place. Were that the case, it would appear the appropriate consenting regime would be a separate Town and Country Planning Act 1990 location nearby to the Scheme.

16.3.20. This concern regards associated development is, however, speculative. It may be (for example) that the Applicant accepts it would not come forward with the Scheme at all until a coordinated connection date is achieved.

16.3.21. SLD will comment on this issue further once the relevant information becomes available.

17. Conclusion

17.1.1. SLD welcomes the opportunity to provide this Written Representation to the ExA. It considers that its evidence base is strong, and that a wide range of significant adverse effects have been identified as a result of the Scheme. For all of the reasons set out above, and in the Appendices attached to this Written Representation, the ExA are asked to recommend to the Secretary of State that development consent be withheld, and the Secretary of State asked to withhold that consent.

Annex A

This note provides assistance to using the interactive map produced by James Verschoyle on behalf of SLD and provided as Appendix Z to this Written Representation.

Using a layered PDF map is like having a stack of clear tracing papers that you can peel away to see exactly what you need. The following instructions here are to control what you see on the map using Adobe Acrobat. Similar steps can be taken in all typical PDF viewers.

1. Open the PDF

To do so, download the document and then open through your desktop PDF viewer such as Adobe. Viewing it through your browser can cause difficulties.

2. Open the layers panel

Look at the vertical tab on the far right side of your screen. Click the layers icon (which appears like two stacked diamonds). This will slide open a panel listing the layers of information.

3. Turn information on and off

Next to each layer name, you will see a box. The layers which are already applied will have an eye icon in them. To show a layer click the empty box. To hide a layer click the eye icon in the box.

4. Tips for best results

- Always keep the two “Base-OS Map” layers on so that you can see the underlying map.
- If visibility is difficult select “Optional – Background Tint”. This will apply a white tint in the layers which helps with visibility (by partially obscuring the OS map behind).
- The layers stack is long, so use the scroll wheel on your mouse to navigate.

- The layer groups are as follows:
    - Base – the base mapping. Typically should be left on at all times.
    - Optional – useful information which is not specifically tied to an Examination document (primarily taken from the Defra Magic Map).
    - APPXXX – layer provides specific information from an Examination document.
- Print what you see: when you print a PDF, Acrobat will only print the current layers you see. If you wish to save a view, you can print (or print to PDF to have an electronic copy).
- Save your view: if you find a specific combination of layers you like, you can save the map PDF and it will usually remember them the next time you open it.

SLD will provide further updated maps as appropriate to best assist the Examination and the understanding of the evidence base.