

PINS Ref: EN010168

# Lime Down Solar Development

Application by Lime Down Solar Park Limited for an Order granting Development Consent for a proposed solar development and battery storage on land in northern Wiltshire

# Landscape and Visual Impact Report

Deadline 1 Submissions

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by

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for

Stop Lime Down

Contents	Page no.
<b>1. Introduction</b>	<b>1</b>
<b>2. Summary of Key Matters</b>	<b>5</b>
<b>3. LVIA Method and Process</b>	<b>8</b>
3.1 Introduction	
3.2 Study Area	
3.3 Landscape Receptors: 'Fabric' / Character	
3.4 Technical Matters	
<b>4. Landscape Character Effects: Introduction</b>	<b>16</b>
<b>5. Landscape and Visual Sensitivity</b>	<b>20</b>
5.1 Landscape Sensitivity	
5.3 Visual Receptor Sensitivity	
<b>6. Cause and Nature of Effects</b>	<b>28</b>
6.1 Introduction	
6.2 Cause and Nature of Effects	
<b>7. Mitigation and Enhancement</b>	<b>32</b>
7.1 Introduction	
7.2 Double-counting Mitigation as Enhancement	
7.3 Mitigation vs Enhancement	
7.4 Adverse Effects of Mitigation Measures	
7.5 Over-reliance on Vegetation to Screen Views	
7.6 Plant Growth Rates	
<b>8. Landscape Effects</b>	<b>46</b>
8.1 Introduction	
8.2 Magnitudes of Landscape Effect	
8.3 Direct Effects: Landscape 'Fabric'	
8.4 Direct Effects: Landscape Character	
8.5 Indirect Effects on Landscape Character	
8.6 Construction Route Character Effects	
8.7 Effects on Character: CNL	
<b>9. Amenity Effects</b>	<b>84</b>
<b>10. Visual Effects</b>	<b>93</b>
10.1 Introduction	
10.2 Technical matters	
10.3 Effects on Public Views	
10.4 Effects on Private Views	
<b>11. Glint and Glare Effects</b>	<b>114</b>
<b>12. Cumulative Effects</b>	<b>118</b>
<b>13. Conclusions</b>	<b>120</b>

# 1. Introduction

- 1.1 I am a Chartered Member of the Landscape Institute (CMLI). A brief summary of my relevant experience is provided below.
- 1.2 In April 2024, I was approached by the Stop Lime Down (SLD) group, which represents people in communities that would be affected by the proposed development. They asked whether I would be prepared to advise on landscape and visual matters relating to the Application, and act for the Group during the Examination. I considered the issues likely to be involved in this Scheme, oriented myself with the proposals for the Scheme at that stage, concluded that I would be prepared and able to undertake the work, and was subsequently appointed.
- 1.3 I reviewed the Application documents and other material, and undertook desktop research. I visited the landscapes which would be occupied by the Scheme and those in the surrounding areas on several occasions, in different seasons, undertaking on-the-ground survey and assessment, and consultation with residents, visitors, stakeholders, and experts appointed by SLD to deal with other environmental topics / planning matters. I analysed the findings, drew conclusions, and compared the results with the Applicant's. The assessment and review were carried out in accordance with relevant published guidance including *Guidelines for Landscape and Visual Impact Assessment* Edition 3 ('GLVIA3')<sup>1</sup>. This report sets out my conclusions.
- 1.4 However, this commission is different from a 'standard' Landscape and Visual Impact Assessment (LVIA), in that it is a 'hybrid' between an assessment of effects, a review of the Application documents, and a response to the Application in the form of a paper to evidence SLD's Written Representation (WR), noting matters which are and are not agreed at this stage. It also factors in matters raised during the Examination process to date, including in the *Applicant's Response to Relevant Representations (RRs) (Part 1)* March 2026 [PDA-009].
- 1.5 Whilst carrying out the commission, I was greatly assisted by residents, many of whom have in-depth knowledge and a lifetime's experience of the area's natural and cultural history, features, resources and qualities. The information they gathered and their responses were used to inform my studies, with appropriate objective review and analysis. The material submitted to the Examination by residents provides important details and illustrations of the Scheme's landscapes and those which form its wider context, including the features, resources and qualities which are most highly valued, and the reasons for their concerns, so should be referred to for more information as required.
- 1.6 It is normal, but sometimes causes difficulty in assessment, that in the planning process, environmental and other topics are kept in silos (heritage, ecology, landscape, transport etc); however, many overlap, and the connections between them may be important (this is often where problems occur but they are not recognised). Because the relevant information is so scattered, it can be difficult to establish how one relates to another, and carry out the necessary analysis / assessment.
- 1.7 For this reason, at an early stage in the process, SLD decided to commission an expert to produce a plan combining baseline and project information, using a 1:25,000 scale OS map as the base. This has proved very helpful whilst preparing reports and responses, so in case useful for others'

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<sup>1</sup> Guidance followed includes the Landscape Institute (LI)'s *Guidelines for Landscape and Visual Impact Assessment* 3<sup>rd</sup> edition ('GLVIA3'); LI Technical Guidance Note (TGN) 1/20 *Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)*; LI TGN 02/21 *Assessing landscape value outside national designations*; and LI TGN 2/19 *Residential Visual Amenity Assessment*. Also, various LI Technical Information Notes (TINs); *Landscape Character Assessment Guidance for England and Scotland* The Countryside Agency and Scottish Natural Heritage (2002); *Topic Paper 5: Understanding Historic Landscape Character* (2002); *Topic Paper 6: Techniques and criteria for judging sensitivity and capacity* (2002); and Natural England's publications *An Approach to Landscape Character Assessment* (October 2014) and *An approach to landscape sensitivity assessment – to inform spatial planning and land management* (June 2019).

reference, SLD will submit the plan with their WR (*Combined Baseline and Project Information Plan* SLD Appendix Z).

### **Relevant Experience**

- 1.8 I am a Chartered Member of the Landscape Institute (CMLI), a Fellow of the Royal Society of Arts (FRSA), a Member of the International Association for Landscape Ecology (MIALE), a Design Council Expert, and a member of the Landscape Institute's Knowledge and Practice Committee, which *inter alia* is responsible for ensuring best practice in landscape assessment.
- 1.9 I specialise in landscape, environmental and colour assessment and planning in the UK and abroad, with a focus on historic landscapes, and have done so for over 40 years. For several years, I have been involved with numerous renewable energy and electricity generation / transmission / storage proposals (wind / solar / pylons / battery energy storage systems (BESS)), some of which are Nationally Significant Infrastructure Projects (NSIPs), working with local planning authorities (LPAs), parish councils, and community groups at all stages of the planning / Development Consent Order (DCO) process. I am therefore very familiar with the issues associated with the proposed Scheme.

### **Endorsement**

- 1.10 The evidence which I have prepared and provide for this Examination is true, and the opinions expressed are my own professional opinions, irrespective of by whom I am instructed. The evidence has been prepared and is given in accordance with the guidance of my professional institution (the Landscape Institute), and I abide by the Institute's Code of Practice.

### **Declaration of Use of Artificial Intelligence**

- 1.11 In the preparation of this expert report, I have utilised Google AI Search for background research purposes to gather preliminary information on specific technical matters. No AI was used to draft or rewrite the text of this report, nor to generate or alter any images or data. All information retrieved via AI has been independently verified against authoritative primary sources, and where appropriate, cross-checked with senior expert colleagues to ensure accuracy and professional robustness. I confirm that the use of AI has been responsible and lawful, and I accept full responsibility for the factual accuracy of all content within this submission.

## 2. Summary of Key Matters

- 2.1 Many of the matters summarised below were raised in SLD's RR [RR-4495]. They are explained in more detail in the following sections, along with other relevant matters which arose during subsequent review, analysis, and assessment.
- 2.2 In summary, I **agree** with the Applicant's LVIA ([APP-060] ES Volume 1, Chapter 8: *Landscape and Visual*), which concludes that broadly, the proposed development would result in **significant adverse effects on landscape character and visual amenity**, some of which could not be mitigated, and would be experienced throughout the Scheme's operational lifetime.
- 2.3 Specifically, within the Order Limits, during construction, operation, and decommissioning, there would be **significant adverse direct residual effects on landscape character**, including on the **setting of the Cotswolds National Landscape** (CNL), which is **adjacent** to the Scheme's north-western boundary.
- 2.4 There would also be **significant adverse indirect effects on landscapes (and villages / communities), including within the CNL and its setting**, during construction, and at least the first 15 years of operation.
- 2.5 At many public and private viewpoints, receptors would experience **significant adverse visual effects**, some for the duration of the operation.
- 2.6 I **agree** with the above conclusions.
- 2.7 In addition, although the LVIA did not expressly deal with the matter, in my opinion, during all phases of development, the Scheme is likely to result in **significant adverse** effects on people's social / recreational amenity, and health and wellbeing.
- 2.8 My assessment concluded that not only do people evidently value these landscapes very highly, but also, the rural landscapes, and the communities they support, are **highly** susceptible to the large-scale highly industrialising form of change which is proposed.
- 2.9 In fact, the LVIA concludes, and I **agree**, that the landscapes within both the CNL **and** its setting (the latter including much of the Scheme), and many human receptors, are of **High** sensitivity (the highest level in the Applicant's LVIA), which is the result of the combination of High levels of value and susceptibility.
- 2.10 The **High** level of landscape and visual value is due mainly to the important landscape-scale, natural and cultural functions these landscapes perform, and services they provide and support.
- 2.11 The landscapes are predominantly of **High** quality, with very few detractors, many positive characteristics, and **High** levels of positive aesthetic, perceptual and experiential qualities, which include local distinctiveness; strong sense of place; highly rural; sparsely-settled; very tranquil; well-managed; considerable visible and buried time-depth; and great biodiversity. The landscapes also offer a wide range of high quality 'natural' / informal recreational resources which are important to residents and visitors alike, many of the latter coming from around the world to enjoy them.
- 2.12 The **High** level of landscape susceptibility to change of the type proposed here is due mainly to factors such as absence of existence of similar industrialising forms of development, and few detracting features within zones of interinfluence; very limited potential for fully-effective mitigation and meaningful enhancement; and little or no ability to replace, repair, substitute, and / or compensate for existing highly-valued landscape characteristics / elements / features / qualities / functions / services that would be damaged / lost, including irreplaceable habitats.
- 2.13 However, notwithstanding agreement with the Applicant that overall, landscape and visual effects would be 'significant' adverse, in many cases I do **not agree** with the LVIA's conclusions about the

- predicted **levels** of adverse effects. In my opinion, in many cases, the levels have been **underestimated**, including the **extent** and **duration** of the effects.
- 2.14 This is important because the LVIA concludes that in several cases, levels of adverse landscape and visual effects would either not breach the significance threshold (which has been set at 'Moderate'); or, after 15 years of operation (when the LVIA assumes the proposed screen planting would have become established and fully effective), levels would fall **below** the threshold. However, where levels have been underestimated, the higher level **would** breach the threshold. Therefore, the level of **harm** to landscape character and visual / other amenity would be **greater** than the LVIA assumes.
- 2.15 This applies to effects during construction as well as operation. The LVIA concludes that overall, during construction, levels of both direct and indirect landscape and visual effects would be **significant** adverse, but that the level would only be '**Moderate**'. I do **not agree** with this conclusion.
- 2.16 Firstly, my own assessment concluded that for the landscapes and visual receptors of the highest sensitivity, many of the adverse effects, including along the construction route, which runs through the **CNL and its setting**, would be **up to Major Adverse**.
- 2.17 Secondly, the LVIA's 'Moderate' judgement is mainly based on construction works being temporary; however, relative to the whole lifetime of the Scheme, the works may be considered 'short-term', but overall, the effects would still be **significant adverse for the duration of the works**.
- 2.18 Note that the CNL Board (CNLB)'s current position on the construction route (as expressed in [RR-0944]) is that for the above and other reasons, '**construction traffic should be routed outside of the CNL**'. Also, that SLD's highways expert concludes that '*the applicant has not properly assessed the potential for the development to lead to **unacceptable impacts on vulnerable highway users**, contrary to the requirements of EN-1*' (emphasis added).
- 2.19 There are several reasons why, in my opinion, the LVIA underestimates levels of adverse landscape and visual effects. Some relate to lack of baseline-gathering and granular analysis, others to what I consider to be misinterpretations of / departure from the relevant guidance. In some cases, the LVIA's justifications for the judgements are not clear or easy to follow, and there appear to be inconsistencies.
- 2.20 Another very important point to note is that the Applicant's LVIA concludes that by Year 15 of operation, when it assumes that the proposed planting would have become established / fully effective, the Scheme would result in **Moderate Beneficial (significant)** effects on the character of sites Lime Down A – E<sup>2</sup>, ie where the proposed solar arrays and other infrastructure would be located. As a result, the LVIA concludes that there would be '**beneficial landscape effects within the setting of the CNL in the long term which would further the purposes of the designation**'.
- 2.21 I do **not agree** with this conclusion. My own assessment concluded that the proposed development would result in **direct significant adverse** effects on the overall character of the sites for the duration of the operation, and the effects could not be mitigated.
- 2.22 Firstly, in my opinion, one reason why the LVIA identifies **beneficial** effects on landscape character is because it has assumed that landscape / visual mitigation can be **double-counted** as landscape / visual enhancement, when, according to GLVIA3 at least, it cannot. However, the LVIA does not clearly differentiate between which measures are mitigation, and which are enhancement.
- 2.23 Secondly, the LVIA appears to have conflated what it calls landscape 'fabric' (usually called landscape 'elements', which are individual parts of landscape such as trees, hedges and buildings), and 'overall character', of which elements are only a part ('overall' character relates to the 'landscape' as a resource, and as a whole, including its functions and the services it delivers; and

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<sup>2</sup> Sites Lime Down A – E are also referred to in this report as 'the sites', or 'main site'; occasionally, the word 'site' is used to describe the entire Scheme, including the proposed cable route.

- factors such as aesthetic and perceptual qualities, especially those which contribute to local distinctiveness).
- 2.24 Importantly, the terms 'fabric' and 'elements / features' are **not** interchangeable with 'overall character', which is what the LVIA itself appears to assume.
- 2.25 Nor do **all** landscape effects derive from changes to physical 'fabric' / elements. Some landscape effects are the result of changes to how a landscape is experienced, and how it functions.
- 2.26 Thirdly, and perhaps most importantly, the LVIA conclusion that the Scheme would result in **Moderate Beneficial (significant)** effects on the character of the sites (albeit not clear whether the assessment as a whole, and the benefits, relate to 'fabric', or overall character), which would **further the purposes of the CNL designation**, has subsequently been **clarified / modified**.
- 2.27 In [PDA-009], the Applicant's response to item ref. **SLD-024 states**, '*It is **fully acknowledged that at the Site level, the character of the Site itself (where there is infrastructure) would be Significantly Adversely affected***' (emphasis added). This **contradicts** the LVIA's conclusions about the development resulting in **beneficial** effects on the overall character of the sites.
- 2.28 However, note that if / where new 'fabric' is proposed **solely** for landscape / visual enhancement, then it could be counted as a landscape / visual benefit. However, if the planting is **only** required for landscape / visual mitigation, then even when established, the effect would be at best **Neutral**. However, whether enhancement or mitigation, the effect of the proposed planting could be **significant adverse**, where, for example, the proposed screening is characteristically inappropriate and / or results in loss of characteristic openness, and / or total loss of view.
- 2.29 Also, the LVIA has not considered that mitigation in the form of screen planting would **in itself** give rise to adverse effects on character, views, and amenity. The requirement for very tall hedges (up to 4.5m high) is in large part due to the Applicant's proposal to use 4.5m-high solar panels, which is unusual for developments of this type, where up to 3.5m is standard.
- 2.30 In many areas, tall hedges are uncharacteristic, and would result in the loss of openness which **is** characteristic. In many cases, tall hedges would result in the **total loss** of public and private views. Both would result in high levels of adverse effects. In fact, the CNLB asked the Applicant to maintain hedges close to the CNL boundary at just 1.5m high for these reasons.
- 2.31 Another important point to note is that the LVIA assumes that where new and / or existing planting is required to mitigate adverse effects on character and views, once it had become fully-established / fully-effective (after 15 years of operation, which is unlikely for the proposed woodlands), the hedges and trees would still be in place, and would remain and continue to be effective screens for the next 45 - 50 years and beyond. In my opinion and experience, for many reasons, that is highly unlikely.
- 2.32 I have questions about a number of matters in the Applicant's LVIA, which hopefully can be resolved during the Examination. Where clarification / information from the Applicant would be helpful, it is highlighted in the text (### **emboldened blue**).
- 2.33 In the light of the responses, further review and assessment may be necessary.

## 3. LVIA Method and Process

### 3.1 Introduction

- 3.1.1 As explained in the previous section, whilst there is broad **agreement** between the Applicant's and my own assessments, in that the proposed development would result in **significant** adverse effects on landscape character and visual amenity, there is **not agreement** about the Applicant's LVIA's predicted **levels** of certain adverse landscape and visual effects, especially their extent and duration. In some cases, the LVIA's underestimation of the levels of adverse effects has resulted in them being below the LVIA's significance threshold, whereas the higher level breaches it, and the effect becomes 'significant'.
- 3.1.2 Also, I do **not agree** that there would be **beneficial** landscape effects during the operational phase.
- 3.1.3 The reasons for the differences in judgements are partly due to differences in interpretation / application of the published guidance, mainly GLVIA3, and what I consider to be shortcomings in the Applicant's LVIA's method and process. These matters are explained in this section and / or in the following sections where relevant, but include:
- i) Lack of granular baseline study and analysis: the LVIA does not factor in the **notable localised variations in character** which occur across the study area, and omits many important value and susceptibility factors, especially strategic landscape and visual resources, functions, and qualities. This has resulted in levels of landscape and visual receptor sensitivity having been underestimated, and thus levels of overall adverse landscape and visual effects having been underestimated.
  - ii) Underestimation of visual receptor sensitivity, partly due to problems with the LVIA's criteria, again, leading to underestimation of levels of adverse visual effects.
  - iii) Not having factored in the cause and nature of many of the impacts and effects likely to arise from the Scheme which could adversely affect landscape and views, resulting in underestimation of levels of magnitudes of effect, and thus underestimation of levels of overall adverse landscape and visual effects.
  - iv) Over-reliance on existing and proposed vegetation to screen views to reduce otherwise significant adverse landscape and visual effects. Note that a) not all adverse effects on landscape character can be mitigated by screening; b) not all of the identified views could or would be screened by the proposed planting; and c) the LVIA assumes that the existing on- and off-site vegetation planting would continue to screen views for the duration of the operation, which is very unlikely (for example, mature forestry plantations may be felled, mature ash trees and elm hedges are already dying). Note that where visual screening was not achieved as assumed, magnitudes of effect at Year 15 would be **higher** than predicted, resulting in underestimations of levels of overall adverse landscape and visual effects. A reasonable worst-case scenario, which is that not all the planting would screen views for the duration of the operation, should be adopted from the outset, and the Scheme assessed, sited, and designed accordingly; or at least, the likely degree of permanence of the off-site screening vegetation upon which the LVIA relies should be assessed and factored into the studies.
  - v) Not factoring in that in itself, the proposed screen planting would give rise to adverse landscape and visual effects, in terms of a) being uncharacteristic; b) resulting in loss of openness, and / or c) resulting in the total loss of a view.

## 3.2 Study Area

- 3.2.1 I **agree** with the outer boundary of the LVIA study area for landscape and visual effects arising from the Scheme having been set at 5km from the Order Limits, and 10km for cumulative landscape and visual effects. I also **agree** with that generally, levels of effects on landscape character and views decrease gradually with distance from development, with the highest levels and thus potentially '**significant**' effects experienced on and / or closest to the development. However, this is not reflected in the LVIA's reporting of effects on landscape character.
- 3.2.2 Also note that direct and indirect adverse effects on landscape, visual, and other receptors are likely to occur along the proposed construction route.

## 3.3 Landscape Receptors: 'Fabric' / Character

- 3.3.1 The matter of what the Applicant's LVIA calls landscape 'fabric' is relevant and important because it is central to the LVIA's conclusion which appears to be that after 15 years of operation – when it assumes that the proposed screen planting would have established successfully and become fully-effective – the proposed development would result in **significant beneficial** effects on the overall character (and / or 'fabric') of the sites (see LVIA Table 8-17 *Significant Landscape Effects*). In turn, the LVIA concludes, these benefits would **further the purposes of the CNL designation** (see LVIA Table 8-28).
- 3.3.2 Conversely, other parts of the LVIA appear to state the contrary, aligning with my own assessment which concluded that the proposed development would result in **significant adverse direct** effects on the overall character of the sites, and thus the setting of the CNL, and **significant adverse indirect** effects on landscapes beyond the sites, including the CNL.
- 3.3.3 This section explains what landscape 'fabric' is, and considers the LVIA's approach to the subject. The effects on, and of, landscape 'fabric' are set out in Section 8.
- 3.3.4 In fact, as mentioned in Section 2 and explained further in Section 8, even if not explicitly stated in the LVIA, it appears that the Applicant has clarified the matter of whether the LVIA assessed the direct effects on the **overall** character of the sites, or just the sites' 'landscape 'fabric'".
- 3.3.5 In [PDA-009], the Applicant's response to item ref. **SLD-024 states**, '*It is **fully acknowledged that at the Site level, the character of the Site itself (where there is infrastructure) would be Significantly Adversely affected***' (emphasis added).
- 3.3.6 However, this **contradicts** the LVIA's conclusions about the development resulting in **beneficial** effects on the character of the sites.
- 3.3.7 In my opinion, the reason for the misperception is due to the LVIA's approach to assessing effects on landscape character, the problem being that the LVIA appears to assume that landscape 'fabric', and 'overall character', are the same thing. However, they are not, and in LVIA / LVA, the distinction is critical to assessments of landscape and visual effects.
- 3.3.8 Apart from a couple of passing references, the word 'fabric' is not used in GLVIA3. Notwithstanding this, however, recently, some landscape practitioners have started using it in LVIA.
- 3.3.9 In fact, landscape 'fabric' is just another word for what GLVIA3 and the majority of landscape practitioners call landscape 'elements'. Use of the term is not problematic, so long as it is clearly defined, and used consistently and appropriately.
- 3.3.10 In the GLVIA3 Glossary, landscape elements are defined as '*Individual parts which make up the landscape, such as, for example, trees, hedges and buildings*'.

- 3.3.11 The Applicant's LVIA method [APP-187] confirms this, and also that 'elements' and 'fabric' are the same: in the LVIA's Glossary, the definition of 'elements' is as per GLVIA3's, and 'fabric' is defined as *'the individual tangible elements or features such as landform, woodland, hedges, tree cover, vegetation that make up a landscape or site. These can usually be described and quantified'* (but note that 'elements' and 'features' are not the same thing – see GLVIA3 Glossary).
- 3.3.12 Most importantly, the terms 'fabric' and 'elements / features' are **not** interchangeable with 'character', which is what the LVIA appears to assume.
- 3.3.13 Nor do **all** landscape effects derive from changes to physical 'fabric' / elements. Some landscape effects are the result of disturbance, movement, noise, odour, awareness, and many other factors which alter not just landscape qualities and how they are experienced (as explained above), but also, and most critically, **how the landscape functions**.
- 3.3.14 'Fabric', 'elements', and 'features' merely **contribute** to a landscape's overall character (and often, to its quality / qualities, distinctiveness, value, and susceptibility to certain forms of change), along with many other factors including people; place; 'tangible / quantifiable' natural, cultural, and social aspects; 'intangible' aspects such as visual and non-visual aesthetic, perceptual, and experiential qualities; and functions / services. These factors – all of which should be considered in LVIA baseline studies and assessments of effects – are illustrated in *Figure 1: What is Landscape?* on page 9 of Natural England's 2014 publication *An Approach to Character Assessment* (reproduced in Section 4).
- 3.3.15 GLVIA3 para. 5.1 explains that *'An assessment of landscape effects deals with the effects of change and development on **landscape as a resource**'*. Para. 3.21 states that *'In LVIA there must be identification of... landscape receptors, including [1] the constituent **elements** of the landscape, [2] its specific **aesthetic or perceptual qualities, and [3] the character** of the landscape in different areas...'*. Para. 5.3 states that LVIA's should *'identify and record the **character** of the landscape and the elements, features and aesthetic and perceptual factors which contribute to it'* (emphasis added). Para. 5.35 states that LVIA's should consider effects such as:
- *'change in and/or partial or complete loss of elements, features **or** aesthetic **or** perceptual aspects that contribute to the character and distinctiveness of the landscape;*
  - *'addition of **new elements or features** that will influence the character and distinctiveness of the landscape;*
  - *'combined effects of these changes on overall character'* (emphasis added).
- 3.3.16 However, at para. 8.5.12, the Applicant's LVIA states that *'**The land** associated with the Solar PV Sites A-E themselves **is defined as the Landscape Fabric**. Landscape Fabric being the individual tangible elements or features of the landscape, such as landform, woodland, hedges, tree cover, vegetation, for example which can usually be described and quantified), **and the local landscape character** (informed by all relevant landscape character assessments)'* (emphasis added).
- 3.3.17 Thus, it appears that 'fabric' has been defined as a **combination** of landscape elements and overall character.
- 3.3.18 If so, firstly, not only is this approach a departure from GLVIA3, but also, it would have led to levels of adverse effects on the sites' overall character having been underestimated, because landscape 'fabric' is only one of many aspects of overall character.
- 3.3.19 Secondly, the LVIA's conclusion that effects on 'fabric' and / or overall character would be beneficial **erroneously** assumes that landscape / visual mitigation measures can be double-counted as landscape / visual enhancements – explained in Section 7, but see GLVIA3 para. 3.39, and for example LVIA Table 8-28, which summarises the Scheme's *'Positive contributions to further the purpose of the AONB designation'*, but describes them (in the name of the table) as *'Mitigation Quantities within setting of the CNL'* (emphasis added).

- 3.3.20 Note that if / where new 'fabric' is proposed **solely** for landscape / visual enhancement, then it could be counted as a landscape / visual benefit. However, if the planting is **only** required for landscape / visual mitigation, then even when established, the effect would be at best **Neutral**. However, whether enhancement or mitigation, the effect of the proposed planting could be **significant adverse**, where, for example, the proposed screening is characteristically inappropriate and / or results in loss of characteristic openness, and / or total loss of view.
- 3.3.21 In summary, in my opinion, the Scheme would result in **significant adverse** direct effects on the **overall character** of the sites. Although not clear in the LVIA, from the Applicant's response to item ref. **SLD-024** in [**PDA-009**], it appears the Applicant now **agrees** that would be the case.

## 3.4 Technical Matters

### LVIA Method: Significance

- 3.4.1 This is not a material matter, but it relates to the LVIA's use of the term 'significance'. For example, [**APP-187**] ES Appendix 8-1 LVIA Methodology (Part 1 of 2) para. 1.1.3 states, '*The significance of landscape and visual effects is determined through consideration of the sensitivity of the receptor and the magnitude of change*'.
- 3.4.2 The Landscape Institute has produced statements of clarification (SoCs) on the subject<sup>3</sup>, but in summary, strictly speaking, in LVIA and LVA, it is the **level** of effect which is determined through 'consideration of the sensitivity of the receptor and the magnitude of change' (eg Low or High). For EIA projects (for which LVIA is the appropriate form of assessment), it is necessary to establish and report whether or not that level of effect is 'significant'. This judgement is usually based on a significance threshold, which is set at the start of the project.
- 3.4.3 In this case, I **agree** with the significance threshold for the LVIA being set at **Moderate** (LVIA para. 8.4.79), but note issue with point scales below.

### LVIA Method: Criteria

- 3.4.4 The criteria which the LVIA uses for making judgements about levels of landscape and visual value, susceptibility to change, and sensitivity, are set out in LVIA Appendix 8-1.
- 3.4.5 GLVIA3 advises that '*the individual criteria contributing to sensitivity and magnitude should be clear*' (Summary advice on good practice p. 46), and that assessors should '*Draw up a list of criteria and factors specific to the individual project and landscape context*'.
- 3.4.6 In my opinion the criteria not entirely clear, nor are they specific to the individual project and landscape context.
- 3.4.7 The implications of this are discussed in comments about receptor sensitivity judgements and elsewhere below / in the relevant sections.

### Landscape Value

- 3.4.8 The LVIA's criteria for landscape value are in Appendix 8-1 Table 8.1.1.3: *Landscape Receptor Value*.
- 3.4.9 Firstly, I note that the criteria for the receptors of highest value (categorised as 'High' in the LVIA – see point scales below) are: '*Typically, a landscape / feature of international or national*

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<sup>3</sup> GLVIA3 SoC 1/13 10-06-13, GLVIA3 SoC 1/14 28-01-14, and LITGN-2024-01 Notes and Clarifications on aspects of the 3<sup>rd</sup> Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3).

*recognition e.g., World Heritage Sites, National Landscapes, National Parks, Scheduled Grade I, Grade II\*, and Grade II listed buildings are all considered nationally significant. They are included on the National Heritage List for England (NHLE). Registered Parks and Gardens (all grades) and Scheduled Monuments also fall into this national category'.*

- 3.4.10 The criteria for Medium value are: *'Regional recognition e.g., Conservation Areas; Grade II Listed Buildings, Registered Parks and Gardens'.*
- 3.4.11 However, my understanding is that Grade I, Grade II\*, and Grade II listed buildings are **all** considered nationally significant (along with Scheduled Monuments). Also, that **all** grades of Registered Parks and Gardens (RPGs) are considered nationally significant. It may be an error, but in the table, RPGs are listed as being of both national and regional 'recognition'. This is likely to have contributed to levels of landscape value having been **underestimated**.
- 3.4.12 Secondly, LVIA Table 8.1.1.2 *'illustrates the selection of criterion [sic] used for assessing the value of undesignated landscapes within TGN 02/21 [Assessing landscape value outside national designations]'*. However, whilst the LVIA reproduces part of the Technical Guidance Note (TGN) Table (Table 1: *Range of factors that can be considered when identifying landscape value*), it does not include the column in TGN Table 1 which lists *'examples of indicators of landscape value'*. The examples, which are *'not exhaustive'*, highlight many of the features and factors which were **not** identified or included in the LVIA's baseline studies: there is little or no analysis of the important contribution that natural and cultural features and factors make to the value of landscapes within the study area.
- 3.4.13 The above are especially important when assessing levels of sensitivity over large geographical areas, as is the case here, because within such large areas there are often notable localised variations in character (see below), and associated differences in levels of sensitivity (see Section 5, but in summary, levels of landscape sensitivity are a combination of levels of value and susceptibility to the form of change proposed).
- 3.4.14 Note that as far as I can ascertain, in terms of overall character, the LVIA only assesses the sites' levels of value: levels of susceptibility to change of this type are not reported (see below).

### **Landscape Susceptibility to Change**

- 3.4.15 Regarding the criteria which the LVIA uses to judge levels of susceptibility to change, Appendix 8-1 Table 8.1.1.4 only provides very short notes which are simply based on GLVIA3's definition of landscape susceptibility (at para. 5.40), and are insufficient for the purpose. GLVIA3 para. 5.43 emphasises that *'the basis for [susceptibility judgements] must be clear, and linked back to evidence from the baseline study'*, which the LVIA has failed to do.
- 3.4.16 As well as *'the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies'* (GLVIA3 para. 5.40), the LVIA should also have judged landscape susceptibility to change against criteria which include:
- Landscape scale, level of containment, degree of interaction between landform, topography, vegetation cover, field pattern and built form.
  - Presence / absence of existence of similar forms of proposed change / development within zones of interinfluence.
  - Presence / absence of detracting features within zones of interinfluence.
  - Potential for mitigation and enhancement.

- Ability to replace, repair, substitute, and / or compensate for existing landscape characteristics / elements / features / qualities / functions / services that would be damaged / lost.
- 3.4.17 Importantly, as mentioned above, as far as I can ascertain, in terms of overall character, the LVIA only assesses the sites' levels of value. Levels of susceptibility to change of this type are not reported, and thus **the sites' levels of sensitivity are not stated, only that of the 'fabric' / elements** – see Section 5. This is important, because the sensitivity level of the sites in terms of overall character is only *partly* determined by the level of the 'fabric's' sensitivity.
- 3.4.18 The implications of the above are explained in the following sections.

### **Visual Receptor Sensitivity**

- 3.4.19 I do **not agree** with the LVIA's visual susceptibility criteria in Appendix 8-1 Table 8.1.1.10 *Visual Receptor Susceptibility to Change* [APP-187] because they include factors which relate to landscape / visual **value**, which are **not** relevant to visual susceptibility.
- 3.4.20 Note that LVIA Appendix 8-1 [APP-187] para. 1.7.13 states that judgements about levels of visual sensitivity are '*Determining **visual** sensitivity is the combination of susceptibility **to change** and value of a view*' (emphasis added), but that is not the case.
- 3.4.21 These matters are explained further in Sections 5 and 10, but in my opinion, the errors have led to some visual receptors' sensitivity levels having been underestimated, and thus, levels of visual effects having been underestimated.

### **LVIA Method: Point Scales**

- 3.4.22 In most LVIA's, the criteria used for making judgements about levels of landscape and visual value, susceptibility, and sensitivity, are set out on point scales ranging from highest to lowest.
- 3.4.23 The Applicant's LVIA uses four-point scales for levels of landscape and visual value, susceptibility, and sensitivity: High, Medium, Low, and Very Low (LVIA Appendix 8-1). No table is provided for levels of magnitude of effect, but LVIA para. 8.7.36 confirms that a four-point scale has been used.
- 3.4.24 A four-point scale is also used for the overall level of effect: Major, Moderate, Minor, and Negligible.
- 3.4.25 In LVIA guidance there is advice but no hard-and-fast rule about the number of points on the scale, and often split categories are used (eg High - Medium). However, in this case, there is a Very Low category but no Very High category, which logically is required for balance, with Medium in the middle.
- 3.4.26 The implications of the Moderate category not being in the middle relate to judgements about 'significance'. In the Applicant's LVIA, the threshold for a 'significant' effect is set out at LVIA para. 8.7.47, which states that '*Landscape and visual effects assessed as Major, Major/Moderate, and Moderate are considered to be significant...*'.
- 3.4.27 However, using the four-point scale means that there is only one full-step category above (Major), and two below (Minor and Very Low). The Moderate level is not in the middle as it would be on an odd-numbered scale, it is the second highest category. Therefore, in my opinion, judgements about whether or not an effect is significant are not properly balanced.
- 3.4.28 That is why odd-numbered eg three- or 5-points scales should be used (in my opinion, the use of a three-point scale is problematic as it is too blunt a tool for the granular analysis and assessment required for very complex projects such as this, being better suited to high-level

landscape-scale strategic studies. I find that a five-point scale ranging from Very High to Very Low, with split categories, is the best approach).

### **Localised Variations in Character**

- 3.4.29 As mentioned above, when assessing levels of sensitivity over large geographical areas, as the Applicant's LVIA has done (see Sections 4 and 5), it is important to factor in any notable localised variations in character, and assess what if any difference the variations make to judgements about levels of landscape and visual sensitivity.
- 3.4.30 The problem with taking a broad-brush approach is that there may be pockets of high sensitivity landscapes within wider moderate sensitivity landscapes, so the potential for high levels of adverse effects is not recognised.
- 3.4.31 Variations in character, and associated levels of sensitivity, are mainly due to natural and cultural influences, mainly geological, hydrological, and topographical factors, which not only result in certain distinctive physical characteristics, but also determine access, activity, landuse and resultant landscape patterns, landscape and visual quality / qualities, and other aspects of character (see *Figure 1: What is landscape?* in Section 4).
- 3.4.32 In fact, some of the variations which occur within the study area's landscapes, and / or the influences which cause the variations, are noted in the relevant published landscape character assessments.
- 3.4.33 For example, in North Wiltshire's 2004 study, the Scheme's main 'host' is Character Area 8 Hullavington Rolling Lowland (the landscape character areas and types within the study area are described and illustrated in the LVIA – see for example Figure 8-5 [APP-094]; also see SLD's *Combined Baseline and Project Information Plan* in SLD Appendix Z, and Section 4 below).
- 3.4.34 At para. 4.137, the profile for Character Area 8 states, '*This diverse geology gives rise to an area of mixed soil conditions, from predominantly pasture on the clay, to arable on the better soils of the Cornbrash. Field patterns are a mix of medium to large sizes, with a pattern of irregular medieval boundary shapes to more regular shapes from later enclosures*'. Notwithstanding this, the Character Area 8 landscapes display localised differences in character (see following sections).
- 3.4.35 However, whilst the profile highlights Corsham Park (or 'Court'), a Grade II\* RPG lying south west of Chippenham, beyond the Lime Down 5km study area, it does not note the presence of 'minor' but nonetheless important (in terms of local character / value) historic parks which can be found within LCA 8, for example at Maidford, east of Norton, and at Lordswood and Lady's Wood, both west of the Fosse Way, and close to the Order Limits.
- 3.4.36 The variations make both positive and negative contributions to the prevailing character of both the 'host' area, and that of the landscapes beyond.
- 3.4.37 Examples of 'anomalous' landscapes within the study area which make positive contributions to character include certain topographical variations at odds with the prevailing topography; localised use of uncharacteristic / untraditional building materials and styles, and boundary treatments; large waterbodies; ancient woodlands; traditional orchards; relic commons; ancient monuments / trackways; and historic parks and gardens – often identifiable from afar due to the clusters of tall ornamental conifers, and scattered mature oak in open fields which are remnants of medieval deer park / forest chase.
- 3.4.38 Examples of 'anomalous' landscapes which make negative contributions to character in the study area include main roads, the railway corridor, and occasional lines of pylons carry overhead cables (the LCA 8 profile mentions the M4, A429, and A420, but not the other detractors). However, the effects of these features are relatively localised, especially where the

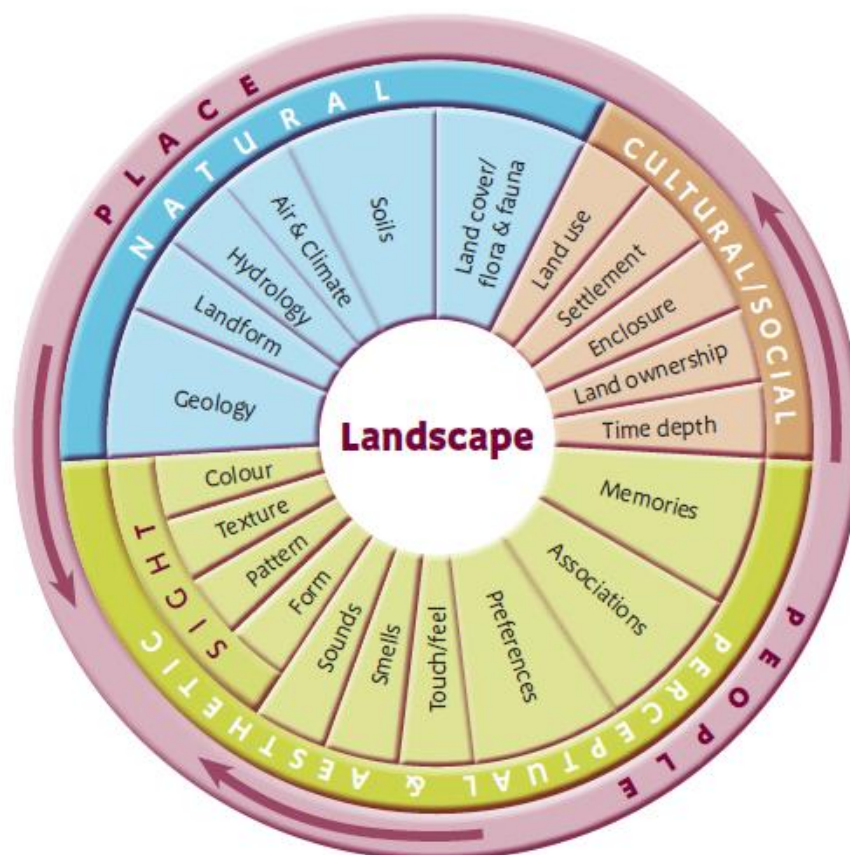
rail and road corridors run through cuttings, often wooded – even the noise does not extend far. There are also a few uncharacteristic / discordant coniferous forestry plantations, and poplar windbreaks.

- 3.4.39 Often, either individually or in combination, the variations result in landscapes and settlements with their own **distinctiveness and sense of place**: even the lower-value landscapes have certain 'special' qualities which need to be factored into value judgements.
- 3.4.40 Effectively, these landscapes are not homogenous, as the LVIA assumes: they display **diversity and complexity**, and that contributes to each area's level of sensitivity.
- 3.4.41 Unfortunately, on projects of such a large scale as this, the amount of work involved in surveying and analysing the baseline situation alone is considerable, so LVIAs almost always have to be carried out at relatively high-level / on a broad landscape scale. Often it is simply not feasible to carry out the granular studies that would be usual on smaller-sized developments.
- 3.4.42 The landscapes, their qualities, differences, and susceptibilities, are best appreciated whilst travelling around the area, although of course it is not only helpful but also important to understand what one is looking at, in terms of natural, cultural, functional and other factors which may mean that a landscape which appears 'ordinary' or 'everyday' is anything but – see Section 5.

## 4. Landscape Character Effects: Introduction

- 4.1 Firstly, it is important to understand the definition of 'landscape' as used in the context of LVIA and other forms of landscape / visual assessment.
- 4.2 The different aspects of 'landscape' – all of which should be considered in LVIA baseline studies and assessments of effects – are illustrated in *Figure 1: What is Landscape?* on page 9 of Natural England's 2014 publication *An Approach to Character Assessment*, provided below for ease of reference. As mentioned previously, many of the factors of relevance to the Scheme are not included in the Applicant's LVIA, or are not factored into judgements about levels of sensitivity and effects.

*Figure 1: What is landscape?*



- 4.3 In LVIAs, effects on the character of the landscape are assessed separately from effects on people's views. That is because effects on character occur even if there is nowhere from which the change / development would be visible, so no one would see it.
- 4.4 Very importantly, objective judgements about visual value, and effects on views, cannot be made without a complete understanding of all aspects of the character of the landscape within which the change would occur, and what the effects of the change on the landscape would be.
- 4.5 Nowadays, it is widely recognised that effects on character should be given as much consideration as effects on views, if not more. In fact, this is reflected in *Figure 1: What is landscape?*, which only devotes a small proportion of the wheel to '**sight**' – see Section 8.
- 4.6 For ease of reference, in a nutshell, the steps in judging overall levels of landscape effects are as follows:

Level of landscape **value** + level of **landscape susceptibility to change of the type proposed** = level of landscape **sensitivity**. Level of landscape **sensitivity** + level of the development's **magnitude of effect** = level of **overall effect** on landscape character (professional judgement must also be applied).

- 4.7 Environmental Impact Assessments (EIAs) and LVIAs have to judge whether or not a predicted level of effect would be 'significant'. Note the error in the Applicant's LVIA method (Appendix 8-1) mentioned previously, ie assuming that combining the sensitivity of the receptor with the magnitude of effect results in the 'significance of effect'. In fact, the combination of sensitivity and magnitude results in the **overall level of effect**; once this is established, judgements about whether or not the effect is 'significant' are based on a pre-set significance threshold (see Section 3).
- 4.8 Even if fully screened from view, development **directly** affects the character of the land on which it is situated, and **indirectly** affects the character of the landscapes beyond, mainly in terms of how they are perceived and experienced.
- 4.9 Here, significant adverse direct effects during construction, operation, and decommissioning, would occur on land within the Order Limits where development / infrastructure would be located / other activities would take place (and along the construction routes); indirect effects would occur elsewhere within the Order Limits, and beyond.
- 4.10 It is important to note that **direct** effects cannot be mitigated, but many **indirect** effects **can** potentially be mitigated.
- 4.11 Some **indirect** adverse effects on landscape character are visual (in terms of perception), and can be mitigated by visual screening / integration; however, many perceptual, aesthetic and experiential effects are **non-visual**, for example sound, smell, awareness, security / safety, memories, associations and so on (see *Figure 1: What is landscape?*), and **cannot** be mitigated by screening / integration. In my opinion, the Applicant's LVIA does not adequately consider non-visual effects. It is useful, for example, to consider how development would affect blind / partially-sighted people.
- 4.12 See also the Landscape Institute's LITGN-2024-01 *Notes and Clarifications on Aspects of GLVIA3* (August 2024) Issue / Question 4 (3) (emphasis added):  
*'Distinguishing between landscape and visual mitigation:*  
***'Care should be taken to ensure landscape and visual mitigation is not confused. For example, it does not necessarily follow that screening a development from view would reduce its landscape effects, such as those on landscape character.'***
- 4.13 The issue of intervisibility vs interinfluence / association also applies to assessments of effects on the settings of heritage assets – see Historic England's publication *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (Second Edition), page 2, 5<sup>th</sup> para. of *Part 1: Settings and Views*, which confirms that harm to settings arises from non-visual as well as visual effects:  
*'The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each.'*
- 4.14 The LVIA process involves considering effects on landscape character at different scales, from national to site level. Section 8.8 of the Applicant's LVIA comprehensively describes the relevant published landscape areas and types within the study area, which include those identified in the CNL's Landscape Character Assessment – see also LVIA Figure 8-5 [APP-094].

- 4.15 Nationally, landscapes are divided into National Character Areas (NCAs). Natural England produces profiles for each NCA, these being **important** because they are '*guidance documents which can help communities to inform their decision-making about the places that they live in and care for [and] also help to inform choices about how land is managed and can change*'.
- 4.16 At a regional and / or county, or 'local' level, landscapes are usually divided into Landscape Character Types (LCTs). Often (as is the case in Wiltshire / the CNL), the 'mother' LCTs, which tend to cover large geographical areas, are subdivided into smaller 'daughter' Landscape Character Areas (LCAs), which reflect the overall characteristics of the mother type but display features and possess qualities which set them apart from sister LCAs in the same mother LCT.
- 4.17 NCAs, LCTs and LCAs are based on natural, cultural and other **variations** in landscapes that make one area distinct from another. The names of NCAs and LCAs are area-specific, summarising the natural and cultural factors which determine the overarching / **overall** character. The names of LCTs denote landscape character in terms of the overarching influences / overall character, but are not area-specific, and can occur anywhere in the country.
- 4.18 Here, Lime Down A, C, the western part of Lime Down B, and the most westerly part of Lime Down D, lie within NCA 107 Cotswolds. These landscapes are characterised by limestone (underlying and exposed) which forms distinctive scarp and dip slopes, and influences drainage, soils, vegetation, land use and settlement: the honeyed tones of the stone set the Cotswolds apart from landscapes elsewhere, giving rise to the '*strong sense of unity for which the Cotswolds are renowned*' (NCA profile p. 7). The profile also describes this as a '*highly distinctive farmed landscape [with a] balance between productive arable, pastoral and wooded elements and the open, expansive views particularly from the scarp, high wold and dip slope*'.
- 4.19 In contrast, the remainder of Lime Down B, D, and the entirety of Lime Down E, lie within NCA 117 Avon Vales. As the name suggests, these are predominantly lower-lying, clay-dominated, relatively flat and open landscapes, influenced by the (Bristol) River Avon and its tributaries, albeit surrounded to the west, south and east by higher land. Mixed, predominantly pastoral agriculture and small limestone-built towns are characteristic. The NCA's '*woodlands and parklands [are a] rich ecological, historical and archaeological resource [with] a sense of place and [providing] benefits to wildlife [and] cultural, health and recreational benefits for local residents*'.
- 4.20 Similarly (in terms of the influence of clay), the 5 km Study Area for Lime Down E includes NCA 108 Upper Thames Clay Vales.
- 4.21 Note that along with the CNL character assessment, the LVIA uses the 2004 North and West Wiltshire Landscape Character Assessments' LCT and LCA profiles as the basis for the effects assessments as opposed to the 2005 Wiltshire Landscape Character Assessment, because they provide '*A finer grain of detail*' (LVIA para. 8.8.50; LVIA Section 8 provides more detail about the various LCTs and LCAs, under the heading *Published Landscape Character Assessments*).
- 4.22 In principle, I agree with the LVIA's approach in this regard, but consider that the 2005 Wiltshire assessment is also relevant, so have factored all three character assessments into my studies, especially when making judgements about levels of landscape and visual sensitivity. Also, as GLVIA3 confirms (at paras. 5.12 – 5.18), it is important not to rely solely on published sources for baseline information, but also to carry out extensive fieldwork, as there may be notable localised variations (as is the case here – see previous and following sections).
- 4.23 As with the NCAs, the LCTs within the 5km study area denote the differences between the higher limestone and lower clay landscapes, and associated character and uses. For example, the 2004 North Wiltshire assessment includes LCT Lowland Limestone (Forest Marble) Farmland, and daughter LCA 8 Hullavington Rolling Lowland. Similarly, the 2005 Wiltshire assessment includes LCT 9: Limestone Wold, and LCT 12: Open Clay Vales. The daughter LCAs' names also reflect this, for example LCA 10A: By Brook Limestone Valley, and LCA 11B; Minety Rolling Clay Lowlands.

- 4.24 Apart from along the construction route and a very small part of the cable route corridor, the only LCTs and LCAs that would be **directly** affected by the Scheme are North Wiltshire (2004) LCT Lowland Limestone (Forest Marble) Farmland, and daughter LCA 8 Hullavington Rolling Lowland. The Wiltshire (2005) equivalents are LCT 16: Limestone Lowland, and LCA 16A: Malmesbury-Corsham Limestone Lowlands. These LCTs and LCAs would also be **indirectly** affected.
- 4.25 There would also be **indirect** effects on North Wiltshire (2004) LCTs Settled Farmland Valley; Rolling Settled Lowland; and Lowland River Farmland. The Wiltshire (2005) equivalents are LCT 9: Limestone Wold; LCT 10: Limestone Valley; LCT 11: Rolling Clay Lowlands; and LCT 12: Open Clay Vales, along with their 'daughter' LCAs.
- 4.26 The CNL LCTs and LCAs that would be indirectly affected (all lying within 5km of the Order Limits and including the proposed construction route) are LCT 9 High Wold Dip Slope / LCA 9D Cotswolds High Wold Dip Slope; LCT 11 Dip Slope Lowland / LCA 11A South and Mid Cotswolds Lowlands; LCT 12 Dip Slope Lowland Valley / LCA 12A Upper By Brook Valley; LCT 14 Cornbrash Lowlands / LCA 14A Biddestone Lowland; and Farmland; and LCT 14 Cornbrash Lowlands / LCA 14B West Malmesbury Lowland Farmland.

## 5. Landscape and Visual Sensitivity

### 5.1 Landscape Sensitivity

- 5.1.1 In the LVIA process, judgements about landscape sensitivity are based on the combination of the level of landscape value, and the level of landscape susceptibility to change of the type proposed (and professional judgement must be applied).
- 5.1.2 See Section 3 above for a summary of technical matters of relevance to judgements about levels of landscape value and susceptibility, for example criteria, point scales, and localised variations in character.
- 5.1.3 Firstly, and very importantly, the Applicant's LVIA reports levels of sensitivity of a) the sites' landscape 'fabric' (see below), and b) the overall character of the landscapes, including villages / settlements, lying beyond the Order Limits. However, as far as I can ascertain, in terms of overall character, the LVIA only assesses the sites' levels of value: levels of susceptibility to change of this type are not reported, and **the sites' levels of sensitivity are not stated**. This is important because as explained previously, the sensitivity level of the sites in terms of overall character is only *partly* determined by the level of the 'fabric's' sensitivity.
- 5.1.4 However, the LVIA does assess the sensitivity of the Scheme's host LCAs, so broadly, and notwithstanding comments about localised variations in character, it must be assumed that the sensitivity of the sites is the same as that of the landscapes within the Order Limits – explained further below.
- 5.1.5 As explained previously, the Applicant's LVIA only considers the North Wiltshire landscape character assessment's LCAs, but I consider the other assessments' LCAs to be relevant to judgements about both sensitivity and effects.
- 5.1.6 In North Wiltshire's character assessment, the LCA which is host to the majority of sites Lime Down A – E is **LCA 8 - Hullavington Rolling Lowland**. Apart from a very small part of West Wiltshire character assessment's LCA A3 Broughton Gifford Limestone Lowland, LCA 8 is the only LCA in the study area (along with its mother LCT) that would be directly **and** indirectly affected.
- 5.1.7 In the 2005 Wiltshire assessment, Lime Down A – E's host LCA 16A Malmesbury-Corsham Limestone Lowlands would be directly and indirectly affected; the area covered is larger than North Wiltshire assessment's LCA 8.
- 5.1.8 Indirect effects arising from development on Lime Down A – E would mainly influence / be experienced in i) the Cotswolds AONB character assessment's LCA 11A South and Mid Cotswolds Lowlands, and LCA 14B West Malmesbury Lowland Farmland; and ii) North Wiltshire's LCA 6 Upper Avon Valley, and LCA 7 Sherston Dipslope Lowland.
- 5.1.9 Also, direct and indirect effects would arise along the proposed construction routes (see Section 8.6). The section of the route which leads to and from the western part of the Scheme runs through the CNL, between M4 Junction 18 and the southern tip of Lime Down C, which is accessed via the Fosse Way. The relevant Cotswolds AONB assessment's LCAs are LCA 11, and LCA 9D Cotswolds High Wold Dip-Slope.
- 5.1.10 The LVIA's conclusions about levels of landscape value, susceptibility, and sensitivity are summarised in **[APP-191]** ES Volume 3, LVIA Appendix 8-3-2-2: *Landscape and Visual Assessment Sheets (Significant)* September 2025 Revision 1.
- 5.1.11 GLVIA3 recommends assessing landscape character and effects upon it at different scales, relying on published information for national, regional, and local levels, and carrying out desktop study and field work for more granular survey and analysis at neighbourhood / site

levels. The latter is important because as explained in Section 3, even within relatively small LCTs / LCAs, there may be notable localised variations in character which affect judgements about levels of landscape value and susceptibility to change.

- 5.1.12 As shown on LVIA Figure 8-5-3 [APP-094] and confirmed in the Assessment Sheets, LCA 8 covers a relatively large geographical area, extending c. 18km from north (Malmesbury) to south (Corsham), and at its widest point, c. 11km from west (Luckington / Alderton) to east (Great Somerford). The Order Limits occupy a relatively large proportion of the LCA.
- 5.1.13 It is clear that not all the landscapes in the study area conform to / are typical of their host landscape areas / types due to the localised variations, yet **the LVIA has not factored these variations into judgements about landscape sensitivity levels**, which are reported to be **the same across very large areas**. This is surprising, and important, because if levels of sensitivity are over- or under-estimated, then levels of overall effects will be as well.
- 5.1.14 For example, in [APP-191] Table 2-2, the LVIA summarises its conclusion that **all** the landscapes within 1km of the Order Limits are of **High to Medium** landscape value; have **Medium** susceptibility to change; and thus are of **High to Medium** sensitivity. Table 2-3 summarises the conclusion that **all** the landscapes within 2km of the Order Limits are **also** of **High to Medium** landscape value; have **Medium** susceptibility to change; and thus are of **High to Medium** sensitivity.
- 5.1.15 However, **these judgements do not reflect the fact that parts of the 1km and 2km study area's landscapes are within the CNL** – although the LVIA recognises this elsewhere – see below.
- 5.1.16 Table 2-4 summarises the LVIA's conclusions about the sensitivity of (and effects upon) landscapes lying between 2km and 5km from the Order Limits; however, here, the approach is somewhat different. The sensitivity assessment of the landscapes within the 1km and 2km study areas is based on their overall character as perceived, as opposed to the character of the various LCTs / LCAs; however, conversely, the LVIA assesses the sensitivity levels of the landscapes between 2km and 5km from the Order Limits based on the *'high-level National Character Area assessment for the Cotswold and Avon Vales [which] provide general characteristics over a large geographical area appropriate to the 5km Outer Study Area'* (see PDF p. 38).
- 5.1.17 The LVIA concludes that *'The distinctive Cotswold NCA [107] is of **High** Value as 65% of the area is within the National Landscape. This is where there is a generally a lower landscape tolerance or only some scope for landscape change or positive enhancement, and higher landscape value and quality associated with the Cotswold National Landscape designation'*. Receptor susceptibility is also **High**, and thus sensitivity is **High**.
- 5.1.18 I **agree** that the CNL should be categorised as the highest category (although I do not agree with the LVIA's use of the four-point scale: in my opinion, a five-point should be used, so the level should be Very High).
- 5.1.19 I do **not agree** with the step of **combining** the NCA's level of sensitivity with that of the CNL's, and reporting the average – they should be reported separately. Evidently, and very broadly, the parts of NCA 107 which are not designated are likely to be of **lower** sensitivity than the CNL, but there will be numerous notable localised variations.
- 5.1.20 Yet, under the heading *Overall Landscape Sensitivity of the 5km Outer Study Area*, on page 41 of [APP-191], the assessment states that *'The overall Sensitivity of the landscape within the 5km Outer Study Area is considered to be **High to Medium**. This takes account of the variation in sensitivity from west to east and the change in character across the landscape from the Cotswolds to the River Avon'* (original emphasis).

- 5.1.21 Similarly, parts of the landscapes lying between 2km and 5km from the Order Limits are within the CNL, but in Tables 2-3 and 2-4, the LVIA only reports the levels of value, susceptibility, and sensitivity, as an **average** across the whole area.
- 5.1.22 In my opinion, it should be made very clear that the CNL is of **High** (Very High) sensitivity, and effects should be assessed on that basis, not High – Medium.
- 5.1.23 The LVIA concludes that **all** the landscapes lying up to 2km from the Order Limits are of **High - Medium** sensitivity, whether or not they are designated. Given the numerous variations in character, this is evidently not the case.
- 5.1.24 Also, the LVIA judges NCA 117 Avon Vales landscapes to be of **Medium** sensitivity, presumably because only very small parts of the NCA are designated (see above comments about combining levels). The table text describes the Avon Vales landscapes within the study area as being '**good quality** [and] **reasonably attractive**'. However, the LVIA categorises the overall character of landscapes within 2km of the Order Limits as **High – Medium** sensitivity due to the CNL designation covering part of them, describing the landscapes beyond the CNL as being '**relatively ordinary**' (PDF p. 32).
- 5.1.25 In my opinion, this is confusing: it is difficult to understand why the LVIA concludes that undesignated but 'good quality / reasonably attractive' landscapes are only of Medium sensitivity, when undesignated 'relatively ordinary' landscapes are also 'Medium'. This is indicative of the lack of granularity in the assessment.
- 5.1.26 Furthermore, as mentioned above, as far as I can ascertain, the LVIA does not assess the sensitivity of the overall character of the sites, only their levels of value. This judgement is found on p. 44 of the PDF, which deals with the *Assessment of Landscape effects of the Scheme within the 5km Outer Study Area*, not the sites themselves. It states, '*The value of landscape within Sites A-C, **within the setting of the Cotswold National Landscape is of High Landscape value as compared to Sites D and E, assessed as having Medium***' (emphasis added).
- 5.1.27 For information, the Applicant and the CNLB have agreed that for the purposes of the Scheme assessments, Lime Down D and E are not within the setting of the CNL. However, I note that this is based partly on intervisibility, which in my opinion is problematic because there is no guarantee that vegetation which currently screens views will still be there in the short term, let alone for decades.
- 5.1.28 I could not ascertain why **the LVIA confers the same (highest) level of value to both the landscapes within the CNL, and those within its setting**. Clarification of this point by the Applicant would be helpful, as it may have implications for judgements made about levels of effects. ### clarification
- 5.1.29 Having said that, whilst travelling around the study area, it is sometimes hard to tell whether or not one is in the CNL. In fact, for the purposes of this project, it is an interesting and useful exercise. It is best carried out on the ground, but the following photographs are an example. They show views along the lane east of Alderton which leads to Church Road. The lane follows the CNL boundary, so there are designated landscapes on one side, and undesignated landscapes on the other. Site Lime Down C is **adjacent** to the lane and the CNL boundary, to the east.

*Lane east of Alderton, looking north west (image capture June 2019 © 2026 Google)*



*Lane east of Alderton, looking north*



*View from Church Road north of Alderton, looking south*



- 5.1.30 As the above photographs show, and even having visited these places, there may **appear** to be little or no difference between designated and undesignated landscapes. That is why it is so important to carry out granular survey, study and analysis beforehand, especially understanding the reasons for the designation. In the past, when landscapes were designated, 'scenic beauty' was often the main criterion; nowadays, the importance of 'character' is recognised, which is influenced by both visual and non-visual / intangible aspects of nature and culture (see Section 8.5).
- 5.1.31 Whether within the CNL or its setting, on its own, a well-managed high-quality landscape is not the only indicator of value. Often, what may appear to be a pile of rubble or unused BMX cycle track is in fact a scheduled monument; a mass of tangled scrub may be habitat for rare / protected species. Thus, judgements about landscape value should always be based on desktop research as well as fieldwork.
- 5.1.32 My own assessment concluded that the main differences in character as seen in the field relate partly to geology and hydrology, with the CNL displaying a greater range of topographical variations than the lower-lying vales, and more woodland<sup>4</sup>. There is also evidence that the protection afforded by the designation, and various management initiatives for landowners / managers within the CNL, tends to result in higher levels of management and thus quality. However, as the above photos attest, that is not always the case.
- 5.1.33 The similarity between the landscapes within the CNL, and those in its setting as described here, appears to have been a consideration when what is now the CNL was being designated as an AONB, and the boundary line being debated, between the 1950s and 1970s.

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<sup>4</sup> The name 'Cotswolds' is derived from the Old English word 'wold' (also 'weald'), which originally described upland 'forests' (a mosaic of habitats including woodland), but later, following widespread woodland clearance, was used to describe 'high forest land', particularly in the Cotswolds.

- 5.1.34 In a publication called *Designation History Series: Cotswolds AONB*, by Ray Woolmore (August 2004), it was noted that land between the CNL's eastern boundary and a point (which I have not been able to identify) east of the Fosse Way ('a charming green road', according to the document), where the Scheme is located, had been a candidate for designation (see Section 8.6).
- 5.1.35 Given the area's relative isolation, and thus lack of pressure from 'intensive' forms of development, it seems unlikely that since then the landscapes have changed so much that they are no longer worthy of consideration for designation.
- 5.1.36 Of course, as explained above, these landscapes are not homogenous, there are also notable localised variations which give rise to local distinctiveness, and in some cases therefore, localised variations in levels of sensitivity.
- 5.1.37 However, it must be noted that overall, the Scheme's host LCA 8 is highly susceptible to the form of change proposed here. In the profile, at para. 4.156, the North Wiltshire assessment states, '*The whole area has an essentially **tranquil and pastoral character** within which **only small-scale, sensitively designed development, appropriately associated with existing built form**, could be successfully accommodated without adverse landscape impacts*' (emphasis added).
- 5.1.38 Evidently, the large-scale industrial project proposed here would be entirely at odds with the prevailing *tranquil and pastoral* character. Very importantly, it is clear that these landscapes do **not** have the ability to '*accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*' (see definition of susceptibility to change, GLVIA3 para. 5.40, and landscape effects in Section 8).
- 5.1.39 Taking a broader overview of the sensitivity of the landscapes within the Order Limits, of relevance here is Wiltshire Council's *Renewable Energy Study Landscape Sensitivity Assessment* Final Report (LUC, March 2023), which is referred to in the Applicant's LVIA at paras. 8.3.49 – 8.3.60. This study is based on the 2005 Wiltshire character assessment, which includes the Scheme's host, LCA 16. The LVIA analyses the study's findings on the basis of LCA 16 (as opposed to North Wiltshire assessment's LCA 8 which otherwise is used throughout the LVIA), and applies them to the proposed development, emphasising that '*LCT16 (outside of the CNL) continually scores as one of the least sensitive areas to solar energy development*'.
- 5.1.40 However, very importantly – and as the LVIA correctly points out at para. 8.3.52 – the *Renewable Energy Study* states that '*Proposed solar PV developments **larger than 120 hectares** have not been considered in the assessment. The assessment notes that "**Landscape sensitivity to these very large schemes would be categorised as "high" sensitivity regardless of location, requiring developers to pay particular attention to this issue in their specific applications**"*' (emphasis added).
- 5.1.41 At 1,237 ha, the Lime Down Scheme is **ten times** the size of the developments considered in the study. Therefore, the starting point for the LVIA should have been the assumption that **all landscapes within the Order Limits are of High sensitivity**, with granular studies carried out to identify and factor in any notable localised variations.
- 5.1.42 In summary, I consider that many aspects of the LVIA's judgements about levels of landscape sensitivity are problematic.
- 5.1.43 Had I carried out the LVIA for this project, I would have used a five-point scale. The CNL would be categorised as **Very High** landscape value, susceptibility, and sensitivity. Broadly, levels of sensitivity would fall from west to east, with the landscapes closest to the CNL being **High** sensitivity, and those beyond being **either High – Medium, or Medium**. This does not take account of notable localised variations in character, which could thus, depending on the situation, confer notably different levels of sensitivity.

- 5.1.44 However, for the purpose of this exercise, on the basis of the above (including the Applicant's choice of point scale), I have assumed that both the CNL and its setting are both of **High** sensitivity.

### Landscape 'Fabric'

- 5.1.45 Regarding the sites' landscape 'fabric', the LVIA concludes that throughout the Order Limits, **all** the existing 'fabric' is of **Medium** sensitivity. This is based on High value, and Low susceptibility to the form of change proposed.
- 5.1.46 Broadly, on a landscape scale, I **agree** with the LVIA's conclusions. However, as explained in Section 3, I concluded that there are problems with the LVIA's approach to these matters, especially the lack of granular assessment – clearly, at a local scale, levels of sensitivity would – indeed, do – vary considerably, especially in terms of value, where the quality / condition / function of the 'fabric' can range from High to Low.

## 5.2 Visual Receptor Sensitivity

- 5.2.1 Regarding levels of visual receptor sensitivity, as explained in Section 3.4, in the LVIA's Appendix 8-1 [APP-187], para. 1.7.13 states that '*Determining **visual** sensitivity is the combination of susceptibility **to change** and value of a view*' (emphasis added).
- 5.2.2 However, *Notes and Clarifications on Aspects of GLVIA3* LITGN-2024-01 Section 2 Issue E3 explains that '*The susceptibility of **visual** receptors is **not** dependent on the specific change being proposed*' (emphasis added) – unlike landscape susceptibility which **is** dependent on the specific change being proposed. It is not clear whether the LVIA assessed effects on the above basis, and clarification would be helpful. ### clarification
- 5.2.3 If the LVIA **has** erroneously assumed that the level of visual receptor sensitivity is dependent on the specific change being proposed, this may have implications for judgements about levels of visual effects, because people's circumstances are the factor at this stage of the process, not the type of change they would experience (that is considered later in the assessment).
- 5.2.4 Also, I do **not** agree with the LVIA's visual susceptibility criteria in Appendix 8-1 Table 8.1.1.10. They do not reflect GLVIA3, as they include factors which relate to landscape / visual **value**, which are **not** relevant to susceptibility.
- 5.2.5 GLVIA3 explains (at paras. 6.32 and 33) that:

*The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of:*

- *the occupation or activity of people experiencing the view at particular locations; and*
- *the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.*

*The visual receptors most susceptible to change are generally likely to include:*

...

- *people, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focused on the landscape and on particular views;*

... [and]

- *communities where views contribute to the landscape setting enjoyed by residents in the area.*

- 5.2.6 In essence, it is *the occupation or activity of people experiencing the view at particular locations, and the extent to which their attention or interest may therefore be focused on the views* which determine visual receptor susceptibility, and the **nature** of the change is irrelevant at this stage of LVIA process.
- 5.2.7 For example, someone who goes for a walk with the main purpose of enjoying the visual / other experiences along the way is of **High** susceptibility, **regardless of whether the landscape is of Low or High visual value**. Importantly, not everyone has access to High value landscapes, but they still enjoy being out and about, especially those living in large settlements with limited access to any open green space.
- 5.2.8 Indeed, at GLVIA3 para. 2.2, there is an extract from the 2002 Landscape Character Assessment guidance<sup>5</sup>, which reminds us that '*Landscape is about the relationship between people and place. It provides the setting for our day-to-day lives. The term does not mean just special or designated landscapes and it does not only apply to the countryside. Landscape can mean a small patch, of urban wasteland as much as a mountain range, and an urban park as much as an expanse of lowland plain*'.
- 5.2.9 In summary, in my opinion, errors in the Applicant's LVIA process have led to some visual receptors' sensitivity levels having been underestimated, and thus, levels of visual effects having been underestimated. This is explained further in Section 10.
- 5.2.10 Notwithstanding this, the worst-case scenario should be adopted. Here, it must be assumed that the reasonable worst-case scenario applies to the **High** sensitivity visual receptors (using the LVIA's four-point scale) who are travelling to and from the CNL through landscapes of **High** sensitivity, for the main purpose of enjoying the views and experiences.

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<sup>5</sup> *Landscape Character Assessment Guidance for England and Scotland* The Countryside Agency and Scottish Natural Heritage (2002)

## 6. Cause and Nature of Effects

### 6.1 Introduction

- 6.1.1 Section 5 explains how levels of landscape and visual receptor sensitivity were underestimated in the Applicant's LVIA, which has implications for subsequent judgements made about levels of landscape and visual effects.
- 6.1.2 In the LVIA process, judgements about levels of landscape and visual effects are based on the combination of the level of receptor sensitivity, and the level of magnitude of effect (eg High sensitivity + Low level of magnitude = Medium level of overall effect).
- 6.1.3 This section deals with the cause and nature of the impacts and effects which are likely to occur throughout the lifetime of the proposed development.

### 6.2 Cause and Nature of Effects

- 6.2.1 Effects may be direct, indirect, secondary, cumulative (inter- and intra-project), short-, medium-, and long-term, permanent, temporary, positive and negative (or beneficial / adverse – the terms are interchangeable, although 'beneficial / adverse' tend to be used more for magnitudes of effect, and 'positive / negative' for overall levels of effect). All these aspects should be considered in LVIA.
- 6.2.2 The Applicant's LVIA and other submitted documents provide limited information about, and / or do not factor in, the cause, nature, and likely extent of all the effects likely to arise throughout the project's lifetime, especially in combination, in many cases resulting in magnitudes of effect having been underestimated.
- 6.2.3 It is very important to understand the cause and nature of the effects, because if the proposed development was granted consent, some of the problematic effects that it causes may need to be resolved through future detailed scheme design adjustments / mitigation / requirements. It is also possible that some of the adverse effects could not be mitigated, and could result in permanent damage to / loss of valuable, and potentially, irreplaceable features.

#### **Construction / Interim Works / Decommissioning Impacts / Nature of Effects**

- 6.2.4 Where relevant, more detail is provided in the effects sections below. In summary, the landscape / visual / amenity / other effects likely to arise during construction, interim works (for example extensive panel replacement, whether due to degradation, or storm / other damage), and decommissioning, and their causes, include:
  - i. Temporary features including industrialising scheme elements, compounds and activities during construction / decommissioning phases.
  - ii. Industrialising scheme elements, features and activities rapidly inserted into / occurring within rural, tranquil landscapes displaying positive aesthetic and perceptual qualities, time depth, and biodiversity, and which despite the presence of some existing small-scale energy infrastructure detractors, currently contain very few developments similar to the type proposed.
  - iii. Adverse changes in the positive aesthetic / perceptual qualities of the landscape especially tranquillity: disturbance / activity / movement / noise (vehicular, mechanical and human); odour; clutter and paraphernalia associated with activities on site; bright colours; glint / glare from reflective surfaces; and artificial light at night.
  - iv. Adverse changes to / loss of critical landscape and visual functions / systems / services.

- v. Extensive engineering works, potentially causing permanent damage.
- vi. Scheme traffic using construction / decommissioning routes along local roads / lanes with many constraints, including high levels of informal recreational use by residents and visitors (drivers, pedestrians, cyclists, and equestrians). Direct and indirect adverse effects on various aspects of character, visual and social / recreational amenity, and adverse implications for user safety.
- vii. Some of the direct effects arising from construction and other traffic using the proposed construction route (for example loss of / damage to verges, hedges and trees, and damage to structures such as bridges and walls) could be permanent, especially if the features are irreplaceable.
- viii. During decommissioning and / or interim works, if / where vegetation along construction routes had been lost or damaged but had been replaced / recovered, and / or features / structures had been repaired (where possible), similar damage / loss could occur again.
- ix. Direct / indirect loss of / damage to existing landscape elements, features and landcover: many found on and around the site are good representations of both the national and local landscapes' areas / types key characteristics. Some features are of high heritage and ecological value.
- x. Pollution of soil, air and / or water - residues and emissions, odour and dust (also nuisances).
- xi. Adverse effects on soil structure and microbiology.
- xii. Disturbance to / loss of wildlife.
- xiii. Changes to / loss of views resulting from the above.
- xiv. Adverse effects of noise, light, pollution, traffic etc. on people's social / recreational and residential amenity, mental / physical health and well-being, and quality of life.
- xv. Potential adverse effects on the local economy: many businesses rely on trade from visitors who come to enjoy the landscape's positive qualities and rich natural / cultural resources.

### **Operational Impacts / Nature of Effects**

- 6.2.5 The operational landscape / visual / amenity / other effects likely to arise / their causes are explained in more detail in the effects sections where relevant, but in summary, they include:
- i. Modern, highly industrialising features and activities within rural, tranquil landscapes displaying positive aesthetic and perceptual qualities, time depth, and biodiversity, and which, despite the presence of a few existing energy infrastructure detractors in parts of the study area, currently contain very few developments similar to the type proposed.
  - ii. Associated negative changes in the landscapes' positive aesthetic / perceptual qualities, especially tranquillity (see below) arising from the industrialising nature of the proposals. For example, the landscape pattern would be disrupted; there would be bright / contrasting colours, and glint / glare from the solar panels and other reflective surfaces. Although levels of some effects would normally be lower during operation than construction / decommissioning, there would still be regular activities on site, with disturbance / activity / movement / noise (human and mechanical), clutter and paraphernalia, lighting and so on, especially during interim works.
  - iii. Adverse long term, potentially permanent changes to / loss of critical landscape and visual functions / systems / services.

- iv. Some of the proposed features / activities have a high degree of permanence, others could be 'truly' permanent.
- v. Long term damage to / loss of Best and Most Versatile (BMV) agricultural land.
- vi. Long term damage to / loss of characteristic vegetation / landuse.
- vii. Potential for catastrophic, extensive adverse effects on landscapes, habitats and communities resulting from BESS thermal runaway events.
- viii. Glint and glare effects.
- ix. Substantial adverse changes to / loss of views and visual amenity resulting from the above.
- x. Substantial adverse changes to the highly-valued and valuable historical, recreational, and ecological resources.
- xi. Potential adverse effects on local business / economy many of which depend on trade from visitors who come to enjoy the landscape's positive qualities and rich natural / cultural resources.

### **Tranquillity**

- 6.2.6 Tranquillity is a very important and relevant consideration here, as recognised by the Applicant's studies including the LVIA (see for example [APP-197] LVIA Appendix 8.6: *Assessment of Effects on the Cotswolds National Landscape and its [sic] Special Qualities* September 2025 Revision 1), as well as many consultees / respondents.
- 6.2.7 Not only is tranquillity one of the CNL's Special Qualities, but also, many parts of the study area benefit from high levels of this quality. Not far from the main road and rail corridors, the ambient noise levels can be extremely low. Even in the villages, often, the only sound is birdsong. This landscape asset is becoming increasingly rare, and here, it is highly prized by residents and visitors alike.
- 6.2.8 Wiltshire Council's Core Strategy Policy Core Policy 51 (Landscape) states that '*proposals will need to demonstrate that the following aspects of landscape character have been conserved and where possible enhanced through sensitive design, landscape mitigation and enhancement measures:... vii. **Tranquillity** and the need to protect against **intrusion from light pollution, noise, and motion***' (emphasis added).
- 6.2.9 Core Strategy para. 6.93 states, '*Core Policy 52 supports the delivery of green infrastructure projects and initiatives. The planning and delivery of these projects will need to address any potential negative environmental impacts, particularly in relation to disturbance of wildlife, flood risk, water quality, landscape character and **tranquillity***' (emphasis added).
- 6.2.10 Effects on tranquillity are set out in Section 8. Below is a summary of what tranquillity is, and why it is important.
- 6.2.11 Tranquillity is defined in the glossary of GLVIA3 as '*a state of calm and quietude associated with peace, considered to be a significant asset of landscape*'.
- 6.2.12 Tranquillity is often assumed to be synonymous with 'lack of sound'; however, in landscape and visual assessment, that is not the case. 'Tranquil areas' should not be confused with '**quiet** areas', which are defined by the European Environmental Noise Directive (END; 2002/49/EC) as '*those areas delimited by national authorities that are undisturbed by noise from traffic, industry or recreational activities*'.
- 6.2.13 In Wales, the definition of tranquillity that has been adopted by both Welsh Government (Welsh Government 2012) and Natural Resources Wales (NRW 2016a) is '*An untroubled state, which is*

*peaceful, calm and free from unwanted disturbances. This can refer to a state of mind or a particular environment. Tranquillity can be measured in terms of **the absence of unwanted intrusions**, or by a balancing of positive and negative factors. These include **the presence of nature, feeling safe, visually pleasing surroundings and a relaxing atmosphere**' (emphasis added).*

- 6.2.14 The LI's technical information note (TIN) 01/2017 on the subject<sup>6</sup> (revised March 2017) was 'prepared for the purposes of providing an overview of what is understood by the term 'tranquillity' within the landscape profession and to inform any future discussions and actions on the topic'. The TIN – which was not referenced in the Applicant's LVIA – explains that 'There are clear links between landscape and tranquillity... the interpretation of tranquillity is often linked to **an association or engagement with the natural environment** and it is this interpretation that places the term within the realms of landscape related study and research' (emphasis added).
- 6.2.15 The TIN goes on to say that 'tranquillity cannot readily be defined as an environmental characteristic or quality as it is a state of mind that is being described and thus human perceptions as well as factual evidence must be considered in any studies relating to the term. Tranquillity is, in effect, an umbrella term used to refer to the effect of a range of environmental factors on our senses and our perception of a place'.
- 6.2.16 Natural England lists 'relative tranquillity' as one of six factors that contribute to natural beauty<sup>7</sup>. See also CPRE's October 2006 publication *Saving tranquil places*.
- 6.2.17 Tranquillity is an important factor in why people visit certain places, and why they choose to live and / or work in them. A 2001 survey commissioned by Defra cited tranquillity as the most commonly-mentioned reason why people visit the countryside<sup>8</sup>.
- 6.2.18 One of the most commonly-reported benefits of tranquillity is its ability to achieve a positive peaceful, state of mind: generally considered to contribute to enhancing people's quality of life<sup>9</sup>.

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<sup>6</sup> <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2017/02/Tranquillity-An-Overview-1-DH.pdf>

<sup>7</sup> *Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England*, Natural England, 2011, periodically updated

<sup>8</sup> *Survey of Public Attitudes to Quality of Life and to the Environment: 2001*, published in 2002 by the Department for Environment, Food and Rural Affairs (Defra)

<sup>9</sup> Jackson, S., Fuller, D., Dunsford, H., Mowbray, R., Hext, S., MacFarlane R. and Haggett, C. (2008). *Tranquillity Mapping: developing a robust methodology for planning support*, Report to the Campaign to Protect Rural England, Centre for Environmental & Spatial Analysis, Northumbria University, Bluespace environments and the University of Newcastle upon Tyne.

## 7. Mitigation and Enhancement

### 7.1 Introduction

- 7.1.1 This section deals with the Applicant's proposals for landscape and visual mitigation and enhancement.
- 7.1.2 Matters include the LVIA having erroneously assumed that landscape / visual mitigation measures can be double-counted as landscape / visual enhancements; the LVIA not being clear about which measures are proposed as mitigation, and which enhancement; the adverse effects arising from some of the proposed mitigation measures; and the LVIA's over-reliance of vegetation to screen views.
- 7.1.3 These are amongst the reasons why, in my opinion, the LVIA has underestimated levels of adverse landscape and visual effects, and erroneous assumptions have been made about the Scheme delivering landscape benefits which the LVIA judges to be '**significant**'.

### 7.2 Double-counting Mitigation as Enhancement

- 7.2.1 The purpose of mitigation is to avoid / reduce / remedy identified adverse effects. The measures which are proposed as mitigation cannot then be **double-counted** as project benefits / enhancements (or compensation).
- 7.2.2 GLVIA3 para. 3.39 explains as follows:  
*'Enhancement is not a formal requirement of the Regulations. It is often referred to **incorrectly** as an outcome of proposed mitigation measures - for example where planting is proposed to mitigate landscape and/or visual effects but will also achieve an enhancement of the baseline condition of the landscape. In practice enhancement is not specifically related to mitigation of adverse landscape and visual effects but means any proposals that seek to improve the landscape and/or visual amenity of the proposed development site and its wider setting beyond its baseline condition' (emphasis added).'*
- 7.2.3 In other words, landscape / visual enhancements are proposals that are **not** required to mitigate adverse landscape / visual effects, so they **can** be counted as landscape / visual scheme benefits, which might potentially outweigh landscape / visual / other harms. (My understanding is that planting proposed as landscape / visual mitigation **may** be counted as ecological enhancement / benefit / gain, so long as it is not required for ecological mitigation.)
- 7.2.4 Clearly, double-counting mitigation measures as enhancements has implications for judgements about levels of effects, since in the planning balance, enhancements / scheme benefits can potentially outweigh harm.
- 7.2.5 Here, the Applicant's LVIA **has** erroneously double-counted landscape / visual mitigation as landscape / visual enhancement, resulting in the judgement that the development would result in certain landscape / visual benefits.
- 7.2.6 However, and in fact, much if not all of the tree and hedgerow planting that is required and proposed to screen views of the Scheme, and / or visually-integrate it into its surroundings, is landscape / visual mitigation, **not** landscape / visual enhancement.
- 7.2.7 In Appendix 8-1 – LVIA Methodology [**APP-187**], para. 1.5.13 **correctly** identifies the important difference between landscape / visual mitigation and enhancement, in line with GLVIA3 eg para. 4.35. Notwithstanding, this, in the assessment process, the LVIA does not always distinguish between them, which has led to the under- / over-estimations of adverse / beneficial effects.

- 7.2.8 Examples of the double-counting error can be found throughout the LVIA and associated material.
- 7.2.9 LVIA Section 8.9 deals with the proposed ‘embedded’ landscape and visual mitigation (usually called ‘primary’ mitigation in LVIA). The proposed landscape (and ecological) mitigating measures are illustrated on the Landscape and Ecology Mitigation Plan (Figures 3-4-1 – 3.4.5.2 [APP-084]). However, where the proposed measures are described in the text, it is not clear whether they are proposed as mitigation or enhancement, or whether it has erroneously been assumed they can be both at once – see following section.
- 7.2.10 LVIA para. 8.9.3 explains the approach that the LVIA has taken to mitigation, stating that ‘Mitigation measures are considered to fall into the categories of:
- Avoidance Measures;
  - Embedded Mitigation Measures; **and**
  - **Enhancement** Measures’ (emphasis added).
- 7.2.11 Yet LVIA Appendix 8-1 [APP-187] para. 1.5.13 states, ‘Where relevant, enhancement measures are identified. Enhancement measures are not required to mitigate significant effects of the Scheme, as any measures required to achieve this will form part of the embedded mitigation identified as part of the iterative design process and will be assessed accordingly. Enhancement measures are therefore also not factored into the determination of residual effects...’, whereas it appears they have been, as explained in Section 8.
- 7.2.12 LVIA Table 8.12: *Embedded Mitigation: Landscape Design Parameters* summarises the proposed **mitigation** measures and the anticipated ‘outcomes’; however, the outcomes include landscape / visual **enhancements**, such as the ‘Overall **enhancement** and strengthening of the Local Character Area, and new planting providing long term screening, structural **benefits** to the landscape’ (emphasis added).
- 7.2.13 LVIA para. 8.10.21 states that ‘Embedded **Mitigation** measures have been included within the design of the Scheme to protect and **enhance** the landscape fabric of the site’ (emphasis added).
- 7.2.14 In *The Applicant’s Response to Relevant Representations (Part 1)* March 2026 [PDA-009], the Applicant’s response to item ref. **SLD-024** states, ‘The LVIA assesses **Beneficial effects** on the Landscape Fabric of the Sites, **as a result of the extensive landscape mitigation measure** [sic] which would reduce the adverse effects of the Scheme on the character or the wider landscape he [sic] extensive mitigation measures are shown in Table 8-18 of the LVIA...’.
- 7.2.15 LVIA Table 8-18 is called *Measurements of Mitigation Measures across the Scheme*, and provides a summary list of ‘mitigation’ measures. However, the same features are described as ‘Landscape **Enhancements**’ in Tables 8-15 and 8-16.
- 7.2.16 Wiltshire Council is clear about the difference between mitigation and enhancement. At para. 8.37, the Council’s RR [RR-4934] states, ‘There is also concern that some essential mitigation measures necessary to mitigate ecological harm are also being presented and possibly **double counted as landscape enhancement**, but without also acknowledging the harm it seeks to mitigate or compensate for, potentially skewing assessment scores. This is viewed to be relevant to consideration of positive environmental enhancement within the overall consideration of planning balance’ (emphasis added).
- 7.2.17 Also, see the bottom row of LVIA Table 8-1 *Planning Inspectorate Scoping Opinion Responses*, under the heading 7.7 *Potential effects and mitigation*: in the response, Wiltshire Council states, ‘The LVIA... will identify appropriate measures to **mitigate** identified harmful landscape and visual effects wherever possible, but it could **also** be used to help identify appropriate environmental opportunities to deliver environmental **enhancement**...’ (emphasis added). Notwithstanding this, the Applicant’s response maintains the error, stating, ‘Consultation... has been undertaken to

*develop the approach to **mitigation**... to help identify appropriate environmental opportunities to deliver environmental **enhancement**' (emphasis added).*

- 7.2.18 Incidentally, in the response to item ref. **SLD-024**, the Applicant correctly notes that NPS EN-1 para. 5.10.5 states that '*Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation*'. This appears to suggest that landscape / visual mitigation can be double-counted as landscape / mitigation / enhancement; however, it may be referring to operational mitigation measures such as hedges and woodland required for screening purposes, but which would be left *in situ* post-decommissioning, at which point it is possible that they could be counted as landscape / visual 'benefits' – see Section 8.4.
- 7.2.19 As explained above, the matter of double-counting is important because it is one of the reasons why the LVIA underestimates levels of adverse landscape and visual effects, and erroneously assumes that the Scheme would deliver landscape benefits.
- 7.2.20 However, here it is also important because the double-counting error has been used to justify the LVIA's conclusion, with which I do **not agree**, that '**beneficial landscape effects within the setting of the CNL in the long term which would further the purposes of the designation**' (LVIA para. 8.10.140).
- 7.2.21 I note that as well as Wiltshire Council's Landscape Officer, the CNLB has expressed concerns about the LVIA having double-counted mitigation as enhancement (and the adverse effects arising from the proposed mitigating measures). CNLB's RR [**RR-0944**] states, '*... in several places within the submission, mitigation measures and enhancement (considered to be measures which demonstrably add value to the host landscape, creating a positive change above its baseline condition) measures appear to be **conflated***' (emphasis added).
- 7.2.22 CNLB's RR also emphasises the importance of differentiating between mitigation and enhancement in the context of statutory duty and purpose (emphasis added):
- 'In reaching his decision in respect of this DCO application, the Secretary of State for Energy Security and Net Zero has a statutory duty to seek to further the statutory purpose of conserving and enhancing the natural beauty of the Cotswolds National Landscape.*
- 'DEFRA guidance states that as far as is reasonably practical, relevant authorities should seek to avoid harm **and** contribute to conserving and enhancing of the natural beauty of National Landscapes.*
- '**This goes beyond mitigation and like for like measures and replacement.** The proposed measures to further the statutory purpose of a National Landscape should explore what is possible **in addition to** avoiding and mitigating the effects of the development, and should be appropriate, proportionate to the type and scale of the development and its implications for the area and effectively secured. As well as being applied within National Landscapes, the 'seek to further duty' also applies to functions undertaken outside of the designation boundary which affects land within a National Landscape.'*
- 7.2.23 Also note that double-counting occurs in the **Commitments Register [APP-291]**.
- 7.2.24 For example, para. 1.1.6 of the Commitments Register report explains that '*Table 1 [of the Report] lists the environmental **mitigation** measures that would be adopted and identifies where that mitigation is secured*' (emphasis added) The heading of the second column of Table 1 is **Mitigation Measures** (including any monitoring required). However, within that column, there are several references to landscape '**enhancement**'.
- 7.2.25 These include '*Hedgerows [to] be maintained at their current height of c1.5m bordering the Cotswold National Landscape*' (see also LVIA Table 8.12, *Existing Vegetation*). In my opinion, this is **not** enhancement, it is a mitigation measure which is necessary to reduce the otherwise very

high levels of adverse visual effects on receptors within the CNL that would otherwise occur due to the loss of characteristic openness / total loss of open view.

- 7.2.26 By counting this mitigation measure as enhancement / benefit, the Applicant concludes that the Scheme would 'further' the CNL's purpose; but the measure is *required* to reduce the project's level of harm on the CNL / associated receptors, and it would **not** 'improve the landscape and/or visual amenity of the proposed development site and its wider setting beyond its baseline condition' (as per the definition of enhancement in GLVIA3 para. 3.39).
- 7.2.27 The same applies to other measures listed in Table 1 of the Commitments Register, such as planting / reinforcing hedges, and creating new woodlands, which the LVIA states are specifically required to reduce high levels of adverse landscape and visual effects. However, it is not always clear which measures are proposed as mitigation and which are enhancement, so in some cases it is not possible to establish whether / where double-counting has occurred. This matter is the subject of the next section.

## 7.3 Mitigation vs Enhancement

- 7.3.1 As noted above, the Applicant's LVIA is not always clear which measures are proposed as mitigation, and which are enhancement, so in some cases it is not possible to establish whether, and if so, where, double-counting has occurred. Clarification of what is actually intended would be helpful. ### clarification
- 7.3.2 The question is, has the LVIA assumed that **all** the proposed 'fabric' would result in landscape / visual benefits, or only that which is **not** required to screen views (or visually integrate the development into the landscape)?
- 7.3.3 It makes a difference because if the former, then benefits will have been overstated / adverse effects underestimated.
- 7.3.4 The LVIA has categorised the **mitigation** measures proposed in the form of planting into Planting Typologies (para. 8.9.34 and Table 8-14). These 'typologies' are used in Table 8-15 *Landscape Enhancements*, and Table 8-16 *Total Landscape Enhancements*.
- 7.3.5 For example:
- i) Do the quantities of *Green Corridor & Woodland Planting*, *Hedgerow Reinforcement and Reinforced Roadside Vegetation*, and *Proposed Hedgerows* **include or exclude** the elements of this planting which are mitigation measures?
  - ii) Is the *Enhanced Riparian Native Planting* proposed as a) landscape integration, b) visual screening, c) landscape / visual enhancement, d) ecological mitigation, e) ecological enhancement, or f) a combination of all these?
  - iii) Have any of the proposed ecological mitigation and / or enhancement measures been included as landscape / visual enhancements, and *vice versa*? For example, the *Proposed Ponds and Wader Scrapes* – are these landscape or ecology requirements / proposals?
  - iv) Is *Groundcover* intended to be landscape / visual and / or ecological mitigation and / or enhancement? Has the LVIA assumed that the change would be from arable to meadow / pasture? If so, that may not enhance character and appearance where arable land use is characteristic in the area.
  - v) Also, note the problems associated with the proposed change from arable to meadow / pasture: arable soils are highly fertile, but species-rich meadow swards only establish successfully on low-fertility soils (and in open fields / unshaded areas). It is not clear how

this would be achieved, for example, would topsoil be stripped, and if so, has this been accounted for?

- vi) In addition, at the end of the 60-year operational phase, the Applicant proposes to return the land 'to its original use and condition': the problems associated with this are explained elsewhere in SLD's submissions; also see decommissioning effects in Section 8.
- 7.3.6 It would be helpful if the Applicant could produce an annotated plan clearly showing which measures are mitigation and which are enhancement, and which are landscape and ecological. Also, consideration could be given to revising the Commitments Register to account for the double-counting error, if it has occurred.
- 7.3.7 If the double-counting error has occurred, then in my opinion, the LVIA should be also revised accordingly.

## 7.4 Adverse Effects of Mitigation Measures

- 7.4.1 The Applicant's LVIA does not factor in that in itself, the new landscape 'fabric' planting (such as hedges and woodland) which is proposed to **mitigate** adverse landscape and visual effects would **give rise to** adverse landscape and visual effects.
- 7.4.2 For example, to help screen the development from lower-lying viewpoints, especially within and in proximity to the developed areas, the LVIA states that the majority of the existing and new hedges within the Applicant's (or other associated body's) control, would be maintained at a height of 4.5m.
- 7.4.3 In my experience, it is unusual for solar LVIA's to propose hedges as tall as this, especially as taller hedges are more difficult to manage well, and tend to become leggy / gappy at the base, allowing views through even when in full leaf. I assume the reason is because the Scheme Design Parameters provide for the general use of tracker solar panels up to 4.5m above ground level (see for example **[APP-055]** ES Volume 1, Chapter 3 *The Scheme*, Table 3-1 on p. 7). The use of such tall panels is also unusual - see visual effects in Section 10.
- 7.4.4 The problem is that characteristically, hedge heights vary throughout the study area, reflecting a) historic and / or current use / function (eg doubling as a windbreak for stock / crops in exposed areas), and b) level of regular maintenance / ongoing management. Often, tall hedges are a sign of lack of management, trees escape, and the hedges become leggy and gappy at the base.
- 7.4.5 In many places, including within the Order Limits, **tall hedges are uncharacteristic / would be inappropriate**. That this is the case is apparent from visiting the sites and surrounding areas, and looking at the existing hedgerows – see also the following photographs taken in the vicinity of the Scheme, which show typical variations in hedge heights including on the boundary of and within the Scheme.









- 7.4.6 Also, whilst from some areas, the existing and / or proposed planting could possibly successfully screen views of the development for the duration of the operation, the LVIA does not factor in that in many cases, the tall hedges (and proposed woodland) would result in the **loss of characteristic openness** that is currently experienced, which is a contributory factor in judgements about levels of overall adverse landscape effects.
- 7.4.7 In addition, note that whilst from some viewpoints the proposed planting might successfully screen views of the development and thus **reduce** levels of adverse visual effects, the LVIA does not factor in that in many cases, the tall hedges (and proposed woodland) would result in the total loss of an open view, which results in a **high** level of adverse visual effect – see Section 10.
- 7.4.8 This is particularly the case within the CNL and its setting, as openness and open views from and to the National Landscape, especially long-distance views, are amongst the CNL's Special Qualities. For this reason, as explained previously, the Applicant has agreed with the CNLB that *'All hedgerows bordering the CNL within Site C (including hedgerow SH3) are to be maintained to a height of c 1.5m (or as existing if greater) to maintain open views of the landscape within the setting of the CNL'*.
- 7.4.9 However, elsewhere, open views would be lost. Note that the profile for the sites' host LCA 8 states that *'wide views over the area'* are also an important characteristic.

*Open landscapes in vicinity of Order Limits*



- 7.4.10 The LVIA's approach to hedge planting is to restore gappy hedges and, within the setting of the CNL at least, re-establish lost historic hedgerows along their original lines. Both are described as 'embedded' mitigation measures. However, it appears that the LVIA would not plant new hedges along arbitrary lines where no hedges existed before (for example along PRoWs crossing sites Lime Down A – E), because this would result in adverse effects by disrupting characteristic field patterns. Clarification would be helpful, but if that is the approach, I **agree** in principle (although there are implications for visual effects – see Section 10). ### **clarification**

## 7.5 Over-reliance On Vegetation To Screen Views

- 7.5.1 The LVIA's predictions about levels of landscape and visual effects factor in screening which a) is currently provided by existing vegetation (hedges and trees), and b) would be provided by reinforcing / filling gaps in existing hedges, and planting hedges and trees, including woodland.
- 7.5.2 Indeed, the LVIA relies heavily on, and emphasises the importance of, existing and proposed vegetation to reduce high levels of adverse landscape and visual effects, including inter- and intra-project cumulative landscape / visual effects, and sequential visual effects, by screening / filtering views of the Scheme. Indeed, in my opinion, the requirement for such extensive and substantial screening acknowledges that this large-scale industrial development is inappropriate in this highly rural, High sensitivity location, where many visual receptors are also of High sensitivity.
- 7.5.3 But in recent times, it has not been considered sufficiently precautionous (nor best-practice in LVIA) to rely on vegetation to screen views even in the shorter term, because **it is not possible to predict with any certainty that existing / proposed screening vegetation would remain in place for the lifetime of a development** (or in the case of new planting, establish in the first place). However, in the assessments of effects, that is what the LVIA has assumed (as has the Applicant's assessment of glint and glare – see Section 11), even though realistically, across the entire Scheme this is **highly unlikely**.
- 7.5.4 This is why LVIA's should report the **reasonable worst-case scenario** of there potentially being **less** screening of views by vegetation than exists at present, or may exist in future (which is the main reason why GLVIA3 recommends bare-earth ZTVs). Even if hedges and woodlands under the control of the Applicant are replaced after failure, the same does not automatically apply to vegetation in the control of landowners beyond the Order Limits.
- 7.5.5 There are many reasons why vegetation should be considered impermanent, many of which are set out in detail in the Woodland Trust's *Woodland Creation Guide*<sup>10</sup>.
- 7.5.6 Factors include inappropriate species selection for situation; poor soil preparation; wrong planting specification; wrong soil type; adverse ground conditions; lack of nutrient availability; lack of effective maintenance and management regimes / quality of care; competition; deliberate removal (authorised / planned, for example forestry plantations / orchards, or unauthorised / unplanned); accident; erosion, decline and death from intensive landuse / pollution, and / or pests / pathogens / diseases (see below); climate / weather-pattern changes, especially the increase in prolonged periods of heat / drought, and rainfall / flooding; or a combination of these and other factors.
- 7.5.7 In some parts of the study area, existing vegetation upon which the LVIA relies on to screen views comprises short-lived coniferous forestry plantations. For example, in LCA 6 Upper Avon Valley, the southern boundary of which is contiguous with Lime Down A and B, one of the main characteristics is *Small blocks of woodland and copses, both deciduous and coniferous*, which include *softwood plantations*. Elsewhere there are broadleaved plantations / shelterbelts of short-lived poplar and willow.
- 7.5.8 Also, I identified significant Ash dieback during my surveys, and widespread Dutch elm disease. I contacted Wiltshire Council to ask whether their tree officers had any information about / was aware of such diseases in the area, and the response from the Trees and Woodland Officer (North and East Wiltshire) Rights of Way and Countryside confirmed my observations, as follows:

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<sup>10</sup> [www.woodlandtrust.org.uk/media/50673/woodland-trust-woodland-creation-guide.pdf](http://www.woodlandtrust.org.uk/media/50673/woodland-trust-woodland-creation-guide.pdf)

*'Ash dieback is widespread throughout the County, we manage our tree stock with annual inspections, where trees are able to be left in public open spaces we tend to intervene where the canopy loss is greater than 50%, with trees located in high occupancy areas or alongside the highway we tend to intervene much earlier.*

*'Dutch Elm disease is still prevalent for trees around the 15'-20' in height due to vector flight path and the suitability of breeding galleries on trees of this size....*

*'Oak Processionary Moth has been found in various locations in our neighbouring counties and on our boundaries, Wiltshire is now within the exclusion zone.'*

- 7.5.9 This is important because the screening currently afforded by trees and hedges which are badly affected by pests and diseases will almost certainly be lost very soon.
- 7.5.10 Many dead ash trees can be seen in roadside and field boundary hedges, and many of the hedges contain elm. A few appear to be **only** elm. Most of the elm hedges are healthy. That is because they are managed at a height of around 1.5 – 2m, the reason being (as noted in the tree officer's response) that the elm bark beetles which carry and spread the Dutch elm disease fungus attack elm suckers / shoots once the plant has grown to c. 5m tall, so keeping them low reduces the risk of dieback (that is why elm survives in hedges but not as mature remnant hedgerow trees in open fields).
- 7.5.11 Note that elm is included in the Applicant's proposed hedgerow plant mixes, and as a woodland tree (see Tables 1 and 3 respectively in [APP-283] *Outline Landscape and Ecological Management Plan* (OLEMP)). However, also note that ecologically, elm is important for several protected / priority / endangered species of fauna and flora, some of which almost fully depend upon it (for example, white-letter hairstreak butterfly; white-spotted pinion moth; and orange-fruited elm lichen).
- 7.5.12 In some parts of the study area, hedges containing elm have grown up to 4 -5m and currently screen / filter views, and the LVIA assumes they would continue to do so for over 60 years. Evidently, that is not the case: dieback at the top of the plants and dead hedgerow trees can be seen, although it appears that in most cases, the dead parts are removed quickly, and the plant is allowed to grow back from the base.

*Elm hedge along lane adjacent Lime Down C*



- 7.5.13 Notwithstanding this, it is still necessary to factor existing vegetation in to visual assessments, but it is important to note the nature of the vegetation – for example, is it a large block of healthy ancient woodland with an assumed high degree of permanence (subject of course to the above factors, especially good long-term management); a mature coniferous forestry plantation which is due to be felled; or a tall hedge which may be cut back / layered at any time, to keep it healthy and dense?
- 7.5.14 In addition, the assessment should note whether screening of views by vegetation is likely to be year-round or seasonal, and the degree of screening – some views may only be partially-screened / filtered by vegetation.
- 7.5.15 In summary, in my opinion, LVIA's should report the **reasonable worst-case scenario** effect of the possibility of there being less screening of views by vegetation in future than currently exists within and beyond the Order Limits, and / or which may be planted as part of the Scheme.
- 7.5.16 However, if / where reliance **is** placed on vegetation to screen – existing and / or proposed – then the assessment should explain and justify the reasons for the reliance, and for the assumption that the vegetation would certainly remain in place and screen successfully for the duration of the operation.

## 7.6 Plant Growth Rates

- 7.6.1 The 4<sup>th</sup> bullet-point at LVIA para. 8.6.1 states that '*15 years after commissioning... is the typical period for the maturation of landscape planting*'.
- 7.6.2 I take this to mean that LVIA's typically adopt 15 years after commissioning as the point in time when, for the purposes of the assessment, it is assumed that the proposed screen planting would have become fully effective – which in my experience, is the case. However, I do **not agree** that all new planting would be 'mature' after 15 years, as much depends on the species (and assumes successful establishment). In a newly-planted broadleaved native woodland, longer-lived species such as oak (which is proposed here) would not be 'mature' for decades.
- 7.6.3 During the examination of the proposed onshore substations for the Norfolk Boreas and Vanguard offshore windfarms ([EN010079] and [EN010087] respectively), the examining inspectors concluded that the proposed planting was not likely to have reached 'maturation' / become effective until **Year 25** of operation.
- 7.6.4 LVIA para. 8.9.31 states that '*a uniform rate of growth is allowed for trees, shelterbelts, and woodland mitigation planting of 0.4m every 1 year. At Year 15 this will result in new trees, shelterbelts, and woodland plantings having reached a minimum height of 7.5m. A uniform growth rate is allowed for new hedgerows of 0.4m every 1 year. This would result in hedgerows being able to be maintained at a height of 4.5m by Year 15*'.
- 7.6.5 I **agree** that in principle, this growth rate could potentially be achieved; however, it is dependent on numerous factors – see reasons why vegetation should be considered impermanent above.
- 7.6.6 GLVIA3 para. 4.43 advises that '*Assumptions about plant growth or other changes over time should be realistic and not over optimistic. The design concept for the mitigation has to have a **good chance of being achieved in practice to be taken seriously by the competent authority**. This requires not only a good understanding of the design of the mitigation but also the conditions and pressures in which that mitigation will have to survive*' (emphasis added).
- 7.6.7 Also, on some solar sites I have visited or am aware of, the proposed planting was carried out prior to works being commenced, or at an early stage of the construction process, but much of the planting was damaged, and was not replaced until the works were complete. On other sites, planting was not carried out before the project became operational.

- 7.6.8 In recent years, especially 2025, due to unusually intense heat and prolonged drought, many new plantations failed despite having been watered regularly – young plants were scorched to death. Even mature native stalwarts such as elder and birch appeared to suffer badly. Conversely, at some sites, extreme rainfall washed away new planting, and where the ground was compacted, the soils remained waterlogged for prolonged periods, damaging / killing plants not tolerant of such conditions.
- 7.6.9 In my opinion, in future it is highly likely that such events will occur more frequently. Indeed, this has been recognised for some time: the Woodland Trust's *Woodland Creation Guide* states that '*Today's new woodlands will, therefore, have to be ready to adapt and evolve over time*'. Thus, maintenance and management prescriptions will have to be tailored accordingly.

## 8. Landscape Effects

### 8.1 Introduction

- 8.1.1 The LVIA process entails establishing levels of landscape value and susceptibility to change of the type proposed, which are combined to give levels of landscape sensitivity, as set out in the previous section.
- 8.1.2 The next stages in the process involve assessing the likely levels of magnitude of effect of the proposed development on all aspects of landscape character (see Section 4), and then combining levels of sensitivity and magnitude to give levels of overall effects.
- 8.1.3 Broadly, the Applicant concludes that the proposed development would result in **significant adverse effects on landscape character**. Specifically, there would be **significant adverse direct effects** on landscapes within the Order Limits during construction, operation, and decommissioning, including on the **setting of the CNL**, which is adjacent to the Scheme's western boundary. 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**.
- 8.1.4 The LVIA also concludes that not all views can be screened by vegetation, so at many public and private viewpoints, receptors would experience **significant adverse effects** on views during construction, operation, and decommissioning which could not be mitigated.
- 8.1.5 I **agree** with the above conclusions.
- 8.1.6 However, in many cases I do **not agree** about the predicted **levels** of adverse landscape effects. In my opinion, the levels have been **underestimated**, along with the **extent and duration** of the effects which would be significant. This is an important matter because, as explained previously, the LVIA concludes that levels of certain adverse effects would be below the significance threshold, or would fall below the threshold after 15 years of operation, whereas a higher level would render them 'significant'.
- 8.1.7 The LVIA concludes that along the proposed construction route, which runs through the CNL and its setting, levels of landscape (and visual) effects would **not** be significant, partly because they are temporary. I do **not agree** with this conclusion: the works may be 'short-term', but the effects would be **significant throughout the duration of the works**. Importantly, the CNLB's current position on the construction route is that '**construction traffic should be routed outside of the CNL**' – see Section 8.6.
- 8.1.8 I do **not agree** with the LVIA's conclusion that the Scheme would result in beneficial landscape effects during operation.
- 8.1.9 As explained previously, this is important because notwithstanding the LVIA having concluded that the Scheme would result in significant adverse indirect effects on the CNL, and significant adverse direct effects on its setting, it also concludes that the Scheme would result in '**beneficial landscape effects within the setting of the CNL in the long term which would further the purposes of the designation**'

### 8.2 Magnitudes of Landscape Effect

- 8.2.1 There are several reasons for the LVIA's underestimations of *overall* levels of landscape effects. Some are the result of underestimations of levels of landscape sensitivity, and issues with the use of the four-point scales, as explained above. Others are the result of underestimations of levels of the development's magnitudes of effect, including not factoring in adverse effects arising from

certain aspects of the Scheme, and / or not identifying their cause and nature – see Section 6. Examples include adverse effects on soils and water quality, which can quickly or slowly result in adverse effects on character and associated views / experiences.

- 8.2.2 Whilst there may be a degree of subjectivity involved in judgments about magnitudes of effect, in LVIA, criteria are set, and should be applied. The criteria should relate to a) the size or scale of change, taking account of loss of landscape elements; changes to aesthetic / perceptual qualities; and whether the effect changes the key characteristics of the landscape which are critical to its distinctive character; b) the geographical extent over which landscape effects would occur / be experienced; and c) the duration and reversibility of the effects (see GLVIA3 para. 5.48 – 5.52). These criteria have been applied in the Applicant’s LVIA, and are explained further below.
- 8.2.3 High levels of adverse magnitudes of landscape effect are attributed to this Scheme not only by the Applicant, but also statutory and other consultees, and are inevitable (see reference to EN-1 para. 5.10.5 above), partly due to its very large size and scale, and subsequent large extent of effects.

### Nature of Change

- 8.2.4 The LVIA acknowledges the overarching effect of the Scheme being the overall change from rural to industrial. The stark contrast between the existing rural agricultural landuse, and the proposed large-scale power-generating / -storing use with associated infrastructure / elements, would result in significant adverse direct and indirect effects on landscape character for the duration of the operation.
- 8.2.5 Although the cause and nature of many of the effects that would arise, especially in combination, are not identified in the LVIA (see cause and nature of effects above), at para. 8.3.50 the LVIA includes an extract from Wiltshire Council’s *Renewable Energy Study Landscape Sensitivity Assessment*, which summarises ‘*the characteristics of solar PV and their potential landscape impacts*’ (and should be referred to for more information on the subject).
- 8.2.6 The EIA Regulations categorise large-scale ground-mounted solar schemes such as this as ‘*Industrial installations for the production of electricity, steam and hot water*’.
- 8.2.7 They are often called solar ‘farms’ as opposed to ‘power plants’ – perhaps originally because their purpose is to ‘harvest’ sunlight, although this is not the generally-accepted definition of a ‘farm’<sup>11</sup>. But in recent times, the term has been and is still used throughout the industry, suggesting a vision far more pastoral than industrial, reinforcing claims that agricultural use can continue within solar sites, for example in the form of sheep-grazing (which the Applicant states is a ‘management option’ here, albeit not ‘*a guaranteed or required component of the Scheme*’ – see ES Volume 1, Chapter 17 Soils and Agriculture [APP-069]).
- 8.2.8 The Applicant has confirmed that grazing by sheep or other animals is neither guaranteed nor required, so in my opinion, the effects of the Scheme should be assessed without grazing being practised. Therefore, I have not set out details here, but can provide evidence if that would be helpful to the ExA. However, to be clear, I have carried out a considerable amount of research into this subject and have yet to find more than a few examples of solar sites in the UK which have been or are currently being grazed by sheep or other animals, nor large-scale solar sites where forms of agriculture (eg agrivoltaics) are being practised (as opposed to land ‘management’, eg hay-cutting). That is mainly because according to those who have tried, for a variety of reasons, grazing simply doesn’t work, being neither practical nor viable.

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<sup>11</sup> The Cambridge Dictionary defines ‘farm’ as ‘*an area of land, together with a house and buildings, used for growing crops and/or keeping animals as a business*’.

8.2.9 The only solar site I have identified to date where it appears that sheep are currently being grazed is Westmill Solar in Oxfordshire<sup>12</sup>. However, this is a co-operatively run, community-owned scheme and the site is very small (c. 12ha), with a generating capacity of c. 5MW. Most importantly, the website explains that the scheme was specifically designed with sheep-grazing in mind: measuring off Google Earth, there is a c. **10m** gap between the panel rows. At Lime Down, if fixed tables were used, the minimum separation distance between rows would be **2.5m** at the closest point; if tracking tables, the distance would be **2.5m** when horizontal (as specified in [APP-055]).

### Size and Scale

- 8.2.10 The Order Limits comprise a total area of 1,237ha (just over 3000 acres). This includes the cable route corridor.
- 8.2.11 If consented, Lime Down would be one of the largest solar NSIPs in the UK. As far as I am aware, the largest consented solar NSIP is Cottam Solar (1,450ha). West Burton Solar is 886ha, Mallard Pass is 852ha. Cleve Hill Solar – now operational – is c. 490ha. Little Crow Solar, one of the first solar NSIPs to be granted a DCO, is c. 226ha.
- 8.2.12 Here, the Applicant's site selection process resulted in the main part of the Scheme (ie where arrays and other infrastructure would be located) having to be divided into five separate areas (sites Lime Down A – E), connected via access and cable corridors. Each of these areas could accommodate, and is the equivalent of, a solar NSIP of c. 250ha.
- 8.2.13 The total area of main part of the Scheme is c. 750ha (c. 1850 acres). The main part would extend c. 9.7km from west (Alderton) to east (Upper Seagry), and c. 4.5km from north (Foxley) to south (East Dunsley / Surrendell Wood).
- 8.2.14 The cable route corridor runs from the southern side of the main site to the existing substation north of Melksham – a distance of c. 16.5km as the crow flies, and c. 22km along the ground.
- 8.2.15 Because the Scheme is spread out over such a large area, the proposed construction routes are extensive, running for many miles along narrow rural lanes to reach the **56 no. access points** which are required. Some of the vehicles necessary to transport the equipment are so large, road widening and passing places would need to be created to accommodate them, as explained below.
- 8.2.16 From maps and plans, it is difficult to appreciate the size and scale of this proposal, especially relative to its wider context and the amount of land it would cover; this is best established by travelling around the area by car and / or on foot / bicycle / horseback.
- 8.2.17 Also, without photomontages / similar images to hand whilst on site / in the area, it is often difficult to estimate how much of the development would be visible, especially where, for example, hedges currently screen views. By way of comparison, the height of the PV arrays would be up to 4.5m, which is the same height as a double-decker bus, and the average height of a bungalow (see Section 10).

### Extent of Effects

- 8.2.18 The development would adversely affect communities and settlements in **at least 24 parishes / parish meetings / small towns** (see list in the index at item 5 in the *Applicant's Response to Relevant Representations (Part 1)* March 2026 [PDA-009]).

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<sup>12</sup> <https://westmillenergy.coop/>

- 8.2.19 **Significant** direct adverse temporary and long-term landscape effects would occur throughout the Order Limits (see size and scale above), and potentially, along the construction routes – see below.
- 8.2.20 **Significant** indirect adverse temporary and long-term landscape effects would extend for over 1km beyond the Scheme boundaries in all directions, **including the CNL and its setting**, and the scattered villages, small settlements, and isolated properties.
- 8.2.21 As explained previously, levels of effects on character decrease gradually with distance from the developed / changed areas. Levels are highest closest to the developed / changed areas (in this case, in my opinion, the highest levels would be ‘significant’ adverse – see below), and would eventually reduce to **Neutral**.

### **Duration and Reversibility**

- 8.2.22 The Applicant’s LVIA assesses effects on the basis of them being ‘long term’, which it defines (at para. 1.6.19 of LVIA Appendix 8-1 [APP-187]) as being ‘10-40 years (or longer)’. Presumably therefore, the LVIA defines the 60+ -year duration of this project as long term, although I note that in at least one solar NSIP application (eg [EN010158] Rosefield Solar), the Applicant’s LVIA has assessed effects on the basis of the proposed change being **permanent** where it lasts for more than 40 years.
- 8.2.23 Also, some effects could be fully permanent, in terms of the loss of irreplaceable landscape features; others could extend for decades beyond the decommissioning phase, for example damage to soils.

## **8.3 Direct Effects: Landscape ‘Fabric’**

- 8.3.1 As explained in Section 3, the matter of what the Applicant’s LVIA calls landscape ‘fabric’ is relevant and important because it is central to the LVIA’s conclusion which, as explained below, seems to be that after 15 years of operation, the proposed development would not only result in **significant beneficial** effects on the character of the sites, but also in ‘**beneficial landscape effects within the setting of the CNL in the long term which would further the purposes of the designation**’ (LVIA para. 8.10.140, emphasis added) – see effects on CNL in Sections 8.5, 8.6, and 8.7 below.
- 8.3.2 LVIA para. 8.10.19 states that ‘**Moderate Beneficial** effects have been identified for the Scheme at Operation Year 15 and decommissioning phases on Landscape Fabric, reflecting that planting will have become established in this timescale’.
- 8.3.3 As explained in Section 3.3, whilst LVIA para. 8.7.15 correctly recognises that landscape receptors include ‘*the constituent elements of the landscape (the Landscape Fabric), [and] its specific aesthetic or perceptual qualities and the character of the landscape in different areas*’, the effects assessment appears to assume that the term landscape ‘fabric’, or ‘elements’, is interchangeable with ‘overall landscape character’, or that ‘fabric’ is a **combination** of landscape elements and overall character, but that is not the case – ‘fabric’ / elements merely **contribute** to a landscape’s overall character, along with many other factors.
- 8.3.4 GLVIA3 para. 5.3 confirms that the baseline studies (ie landscape character assessment) should **not only** identify and record landscape elements (or ‘fabric’), features, and aesthetic and perceptual factors, **but also** identify and record the **overall character** of the landscape, to which the landscape elements, features and aesthetic and perceptual factors **contribute**.
- 8.3.5 Also, not **all** landscape effects derive from changes to physical ‘fabric’ / elements, as the LVIA appears to assume. Landscape effects arise from changes to other aspects of character, which

include both ‘tangible / quantifiable’ aspects (natural, cultural, and social), and ‘intangible’ aspects such as visual and non-visual aesthetic, perceptual, and experiential qualities; and functions / services.

- 8.3.6 The correct approach to assessing effects on overall character is summarised in GLVIA3 para. 5.34, which advises that *‘The first step is to identify the components of the landscape that are likely to be affected by the scheme, often referred to as the landscape receptors, such as **overall character** and key characteristics, [and] individual elements or features, and specific aesthetic or perceptual aspects’* (emphasis added). See also GLVIA3 para. 5.35, which reaffirms that LVIA should assess how the **combined** effects of changes to elements / aspects would affect **overall** character.
- 8.3.7 In fact, it is not entirely clear how the LVIA deals with direct effects on the sites’ ‘fabric’ and / or overall character because there appears to be inconsistency.
- 8.3.8 In [APP-191], Table 1 summarises the landscape receptors (below for ease of reference).
- 8.3.9 The first receptor is landscape ‘fabric’, which is all that is reported in terms of effects on the sites’ overall character. As noted above, the Local, Wider and Outer Study Area boundaries are measured from the sites’ boundaries, and do not include the sites themselves.

**Table 1 Landscape Assessment Summary - (Cumulative) Scheme Effects**

Lime Down Solar Park: Summary of (Cumulative) Scheme Effects				
Receptor	Significance of Effect			
	Construction	Operation – Year 1	Operation – Year 15	Decommissioning
Landscape Fabric	Moderate / Minor Neutral	Moderate / Minor Neutral	Moderate Beneficial (Significant)	Moderate Beneficial (Significant)
Local Study Area	Moderate (Significant)	Moderate (Significant)	Moderate / Minor Adverse	Minor Adverse
Wider Study Area	Moderate / Minor Adverse	Moderate / Minor Adverse	Minor Adverse	Minor Adverse
Outer Study Area	Moderate / Minor Adverse	Moderate / Minor Adverse	Minor Adverse	Minor Adverse

- 8.3.10 As an aside, in the above table, under the heading ‘Significance of Effect’ (see note in Section 3 about this error), during construction and at Year 1, effects on ‘landscape fabric’ are reported to be *‘Moderate / Minor Neutral’*. However, it is not clear whether this is a range of levels or a split category, and it is not stated whether the effects are adverse or beneficial: it would be helpful if the Applicant could explain. ### clarification
- 8.3.11 Effects on the individual sites (Lime Down A – E) are reported in Appendix 8-3-2-2 Section 3, under the heading *Landscape Fabric*. Here, it is difficult to ascertain whether the effects which are reported relate to ‘fabric’ in terms of ‘elements’, or to overall character, or both (bearing in mind that the LVIA treats them as one and the same). From the Baseline and ‘Embedded Mitigation’ descriptions, it appears they relate to both ‘fabric’ and overall character.
- 8.3.12 See for example Table 6 Lime Down A, on page 49, under the heading Value, which states:  
*‘Landscape Fabric is the individual tangible elements or features such as landform, woodland, hedges, tree cover, vegetation that make up a landscape or site.*  
*‘These features are the fundamental elements that contribute to our perception of a landscape, and as such are duly recognised for this importance. The Landscape Fabric is therefore considered High Value. This is not to say that the landscape itself is of a high value (i.e., a Valued Landscape) but that the individual features within it such as the landform, woodland, hedges, tree cover and vegetation are worthy of conservation and there is a general absence of detracting features in the landscape.*

*'Site A has a positive landscape character which includes its topographic features, trees, hedgerow and landcover which provide a strong sense of place within the landscape. These are features worthy of conservation and there is a general absence of detracting features in the landscape. The features of the Sites are generally of high-quality with a strong strength of character which are representative of the Hullavington Rolling Lowland.*

**Receptor Value: High'** (original emphasis).

- 8.3.13 However, the judgements about levels of value, susceptibility, sensitivity, and (under the heading *Assessment of Effects*, on pp. 53 and 54) magnitude, and overall effect, relate **specifically** to 'fabric'.
- 8.3.14 At para. 8.10.19, the LVIA concludes that '**Moderate Beneficial** effects have been identified for the Scheme at Operation Year 15...' (emphasis added).
- 8.3.15 If the LVIA means beneficial effects on overall character, which may be intended but is not inferred, even *with* double counting, it is not possible for effects to be beneficial, because the **direct** effect on the overall character of each of the sites would be **significant adverse for the duration of the operation**, and this effect could not be mitigated. Of course, this is the inevitable result of any direct effect which changes land from greenfield to developed.
- 8.3.16 Note here that as explained previously, and explained further below, even if not stated in the LVIA, it appears that now, the Applicant has clarified the matter of whether the LVIA did or did not assess the direct effects on the character of the sites. In [PDA-009], the Applicant's response to item ref. **SLD-024 states**, '*It is fully acknowledged that at the Site level, the character of the Site itself (where there is infrastructure) would be Significantly Adversely affected*' (emphasis added).
- 8.3.17 If the LVIA means beneficial effects on the sites' landscape 'fabric' strictly in terms of '**elements**', ie *landform, woodland, hedges, tree cover, and vegetation*, which is what **is** inferred in the text, then the reason for the beneficial effect is due to the LVIA having erroneously **double-counted** mitigation measures as enhancements (see Section 7).
- 8.3.18 The proposed planting, which would become new / restored landscape 'fabric', is required to reduce high levels of adverse effects on character and views (although as mentioned in Section 7, in the LVIA it is not entirely clear which measures are mitigation and which are enhancement: some of the planting may not be required for mitigation so *could* be a landscape benefit).
- 8.3.19 Note that the title of LVIA Table 8-18, which follows para. 8.10.19, is *Measurements of Mitigation Measures across the Scheme*. These are **not** enhancements or Scheme benefits. Clearly, double-counting mitigation measures as enhancements has implications for judgements about levels of effects, since true enhancements / scheme benefits *could* potentially outweigh harm.
- 8.3.20 However, also note that if / where new 'fabric' is proposed **solely** for landscape / visual enhancement, then it could be counted as a landscape / visual benefit. However, if the planting is **only** required for landscape / visual mitigation, then even when established, the effect would be at best **Neutral**.
- 8.3.21 However, whether enhancement or mitigation, the effect of the proposed planting could be **significant adverse**, where, for example, the proposed screening is characteristically inappropriate and / or results in loss of characteristic openness, and / or total loss of view – see Section 10, and photographs of open landscapes in other sections.

## 8.4 Direct Effects: Landscape Character

- 8.4.1 As noted previously, development **directly** affects the character of the land on which it is situated, often through the change from unbuilt / undeveloped / greenfield land, to built / developed land.
- 8.4.2 Here, significant adverse direct short- and long-term effects during construction, operation, and decommissioning, would occur on land within the Order Limits where development / infrastructure would be located / other activities would take place (and potentially, along construction routes, including within the CNL – see below); indirect effects would occur elsewhere within the Order Limits, and beyond – see next section. It is important to note that whilst the level of direct harm can be reduced by measures such as reducing the area covered, once the siting is fixed, the direct effects cannot be further mitigated.
- 8.4.3 However, as explained above (see also para. 2.2.6.6 of SLD’s RR), but also see below, the Applicant’s LVIA did not assess the **direct** effects that would occur on the overall landscape character of the sites (Lime Down A – E), only on what the LVIA calls the sites’ landscape ‘fabric’ (see previous section), which the LVIA concludes would be **Moderate Beneficial (significant) at and beyond Year 15 of operation**.
- 8.4.4 The omission of the assessment of effects on the character of the sites occurs throughout the LVIA, but see for example Section 3.2 *Landscape Character – The 1km Local Study Area (Individual Sites)* in the *Landscape and Visual Assessment Sheets (Significant)* [APP-191] (as mentioned previously, the Local, Wider and Outer Study Areas are all beyond the Order Limits, as confirmed in LVIA para. 8.4.20).
- 8.4.5 As noted in the previous section, in the LVIA tables, effects on the individual sites are reported under the heading *Landscape Fabric*, but it is difficult to ascertain whether the effects which are reported relate to ‘fabric’ in terms of ‘elements’, or to overall character, or both (bearing in mind that the LVIA treats them as one and the same). From the Baseline and ‘Embedded Mitigation’ descriptions, it appears they relate to both ‘fabric’ and overall character.
- 8.4.6 However, in terms of whether or not the LVIA did or did not assess the direct effects on the character of the sites, it is very important to note the following:
- 1) In [PDA-009], the Applicant’s response to item ref. **SLD-019** states, ‘*The Applicant wishes to clarify that **at no point in the assessment are Beneficial effects on Landscape Character... recorded***’ (emphasis added).
  - 2) However, at para. 8.5.12, the Applicant’s LVIA states that ‘*The land associated with the Solar PV Sites A-E themselves **is defined as the Landscape Fabric... and the local landscape character***’ (emphasis added), with ‘fabric’ appearing to have been defined as a **combination** of landscape elements and overall character. Note that in LVIA, ‘fabric’ is only one aspect of overall landscape character, which include a variety of key characteristics, qualities, and natural, cultural, aesthetic and perceptual factors. It would be helpful if the Applicant could clarify whether the LVIA treats landscape ‘fabric’ and overall landscape character as one and the same. ### clarification
  - 3) In [PDA-009], the Applicant’s response to item ref. **SLD-024** goes on to say, ‘*It is **fully acknowledged** that **at the Site level, the character of the Site itself (where there is infrastructure) would be Significantly Adversely affected** with the land now presenting as a large scale solar scheme, as with the development of any green field Site*’ (emphasis added).
  - 4) If that is the case, it was not made clear in the LVIA. It would be helpful if the Applicant could highlight where this is explained in the LVIA, and confirm **agreement that the development would result in direct significant adverse effects on the overall character of the sites during construction, operation, and decommissioning**. ### clarification

- 5) Also, if that is the case, it would be helpful if the Applicant could state the **level** of predicted effect. ### clarification
- 6) My own assessment concluded that for the High sensitivity landscape receptors, which are predominantly those within the setting of the CNL, the level of magnitude of effect would be High ([APP-187] Table 8.1.1.8), resulting in a **Major Adverse (significant)** effect (Table 8.1.1.14) (I have used the Applicant's LVIA's criteria and point scales, but note the problems mentioned previously).

8.4.7 Also note that many of the adverse effects on landscapes within the Order Limits would cause **indirect** adverse effects on and within the landscapes beyond.

#### **Direct Effects During Construction**

- 8.4.8 The Applicant's LVIA does not assess direct effects on the overall character of the sites during construction, only on landscape 'fabric', concluding that the level of construction effect on 'fabric' would be **Moderate / Minor Neutral** (see previous note about clarification of this being required).
- 8.4.9 Given that the LVIA predicts a Moderate Adverse 'significant' **indirect** effect on the **overall character** of the landscapes closest to the Scheme, including the CNL, evidently the level of **direct** effect on the **overall character** of the landscapes within the Order Limits would also be significant, but a higher level, especially as many of the direct construction effects on character – such as tranquillity (one of the CNL's Special Qualities) could not be mitigated (see effects on tranquillity in Section 8.7).
- 8.4.10 My own assessment concluded that levels of direct construction effects on the **overall character** of the areas of High sensitivity would be **Major Adverse (significant)**.
- 8.4.11 Importantly, whilst the magnitudes of effects of the construction works may be assessed on the basis of them being 'short-term', the direct effects would be **significant throughout the duration of the works**. Also it must be borne in mind that some effects would be **permanent**, for example damage to irreplaceable features / habitats.
- 8.4.12 In addition, and also importantly, adverse and sometimes significant effects arising from the construction of ground-mounted solar developments in the UK are only just becoming evident, due to there being relatively few large-scale sites (and only one NSIP) where construction of such schemes has been completed<sup>13</sup>. Many of the effects which have been recorded were not predicted.
- 8.4.13 Indeed, in one of its responses to the Mallard Pass solar NSIP Examination [EN010127], Natural England said that regarding solar development generally, *'there could be a disbenefit to the soil resource due to **unknowns** as a result of the solar development infrastructure. It is currently **unclear** as to what impact the solar panels may have on the soil properties such as carbon storage, structure and biodiversity. For example, as a result of changes in shading; temperature changes; preferential flow pathways; micro-climate; and vegetation growth caused by the panels. Therefore, it is **unknown** what the overall impact of a temporary solar development will have on soil health'* (emphasis added).

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<sup>13</sup> The first 'large-scale' solar development to be granted planning permission was the Wheal Jane site in Cornwall, which became operational in 2011: the application was for a generating capacity of 1.55MW on a c. 4ha brownfield site (an old tin mine). In July 2025, Cleve Hill Solar Park became the first solar NSIP in the UK to start operating. As far as I am aware, this is the only operational solar NSIP in the UK, and the only other solar NSIPs where construction is, or will soon be, underway, are Longfield Solar Farm ([EN010118], in 'light preparation' phase), and Little Crow Solar Park ([EN010101]), works were due to start in spring 2026).

- 8.4.14 Also, see the report produced by ADAS for the Welsh Government (March 2023) called *The impact of solar photovoltaic (PV) sites on agricultural soils and land quality*<sup>14</sup>, which concludes that during construction, pollution incidents can result in longer-term detriment to soils, and the works '*can negatively impact the flexibility of agricultural land, potentially lowering quality and ALC grade*'.
- 8.4.15 Effects on / changes to soils, especially in terms of quality and condition (whether from an ecological or an agricultural perspective – see below), are relevant to effects on landscape character and associated views because the nature and quality of the soil determines which plants will grow: vegetation is an aspect overall character in many regards, and is relevant to views / visual amenity, for example in terms of screening views.
- 8.4.16 See also construction route effects in Section 8.6 below.

#### **Direct Effects During Decommissioning**

- 8.4.17 The LVIA does not assess direct effects on the overall character of the sites during decommissioning, only on landscape 'fabric', concluding that the level of effect on 'fabric' would be **Moderate Beneficial (significant)**.
- 8.4.18 I do **not agree** with this conclusion: it is due to the double-counting error explained in previous sections.
- 8.4.19 Very broadly, the cause, nature, duration, extent and levels of decommissioning effects are likely to be similar to those which apply to construction effects, but levels are likely to be highest at the start of the works, and would gradually reduce over time as the industrialising elements / activities / influences are removed / cease, and the landscape regains its pre-development rural character and qualities.
- 8.4.20 Similarly, whilst the magnitudes of effects of the decommissioning works may be assessed on the basis of them being 'short-term', the direct effects would be **significant throughout the duration of the works**. Also it must be borne in mind that some effects would be **permanent**, for example damage to irreplaceable features / habitats, and potentially, soils.
- 8.4.21 Importantly, again because the industry is relatively young, as far as I am aware, no large-scale solar or BESS developments in the UK have yet been decommissioned, and even globally, I believe the numbers are very small, although some operational sites appear to have been abandoned.
- 8.4.22 In my opinion, as explained below and elsewhere in SLD's submissions, it is unlikely that a) the land within the Order Limits could or would be returned to its former use, and b) that arable land within the Order Limits *could* be returned to its former condition – as the Applicant proposes, and the assessments assume. Note that the proposed decommissioning measures are unsecured.
- 8.4.23 In summary, construction, interim, and decommissioning works can / are likely to result in long-term / permanent adverse effects on soils (and adverse effects on water quality / drainage – the two are closely interrelated). The ADAS / Welsh Government report mentioned above concludes that works '*can negatively impact the flexibility of agricultural land, **potentially lowering quality and ALC grade***' (emphasis added).
- 8.4.24 Extensive and intrusive engineering works would be required to construct extensive platforms and attenuation basins / swales. During decommissioning, the removal of these and other scheme elements / structures / materials would involve another round of significant works and associated soil damage (and adverse effects on water quality / drainage), exacerbated by the earth-moving necessary to restore the land to its previous natural profile. Large amounts of redundant material would need to be exported and new subsoil / topsoil imported for infilling and creating a new

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<sup>14</sup> <https://www.gov.wales/impact-solar-photovoltaic-sites-agricultural-soils-and-land-quality-summary>

surface to receive arable crops (where previously grown). It is likely that the subsoils beneath the platforms would be permanently compacted. Land- and mole-drains are likely to have been damaged, resulting in significant long-term drainage problems, with adverse implications for soil health.

- 8.4.25 As a result of these works, combined with the loss of fertility generally (see below), the soils' ALC grades would almost certainly be lower than they are now (see below).
- 8.4.26 The Applicant appears to assume that 'resting' arable soils for long periods is beneficial for soil health and quality. This may be true from an **ecological** perspective, but not from an **agricultural** one, where the intention is to revert to arable use, as is the case here.
- 8.4.27 In fact, it is the **complete cessation** of arable use that is beneficial for soil health and quality in terms of **ecology**, because biodiversity increases as fertility reduces.
- 8.4.28 However, here, the intention is to **restore land to arable production**. From an agricultural perspective, long periods of resting are **not** beneficial for soil health and quality, because of the **significant reduction in fertility**.
- 8.4.29 The concept of soil recovery, or 'resting', has been practiced for millennia: in summary, it involves cessation of intensive / depletory agricultural activities for a period of time, and either allowing plants to establish naturally, or sowing / planting a cover crop such as a grass ley or legumes, which helps the soil replenish its depleted resources.
- 8.4.30 Importantly, **the benefits of resting are only temporary**, and do not increase exponentially: studies show that the optimum resting period is around three years<sup>15</sup>. 'Resting' specifically relates to cultivated land which would be re-cultivated following the 'resting' period (as would be the case here), as opposed to 'restoring' land to its pre-cultivated state (also 'rewilding'). In principle, the **long-term** ecological benefits of 'restoration' are greater than those of 'resting'.
- 8.4.31 Furthermore, it has been demonstrated that the most effective method of improving and maintaining good soil health (physical, chemical, and biological) for **food production** is through regular and diverse crop rotation **interspersed** with resting, as opposed to semi-permanent leys and / or grazing<sup>16</sup>.
- 8.4.32 It is **very difficult to restore soil fertility**, and can take decades (as confirmed by various Natural England Technical Information Notes on the subject<sup>17</sup>).
- 8.4.33 Also, the long-term ecological benefits of 'resting' soils are based on the land being meadow / pasture which is grazed and / or cut for hay. However, as mentioned previously, a) grazing animals within solar arrays is rarely practiced because of the problems which include grazing being impractical / unviable; and b) the sward not getting enough light (hay meadow plants only thrive in open spaces) and thus not providing sufficient nutrition. Such effects are also addressed in other reports produced by SLD.
- 8.4.34 In addition, if any ecological benefits arising from 'resting' and the successful establishment of hay meadow / pasture had accrued over time, they would be lost if / when the land was returned to productive arable use – see next section.
- 8.4.35 Furthermore, the Appellant has not considered how the proposed wildflower meadow and pasture would successfully establish on arable fields, given that they require low-fertility soils and arable soils are highly fertile.

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<sup>15</sup> See for example Merfield, C. N. (2019). Rotations and their impact on soil health. Report number 03-2019. The BHU Future Farming Centre, Lincoln, New Zealand. 22.

<sup>16</sup> See for example <https://gtr.ukri.org/projects?ref=BB%2FR021716%2F1>. Also <https://www.soilassociation.org/media/4672/7-ways-to-save-our-soils-2016.pdf>

<sup>17</sup> Natural England Technical Information Notes TIN067 and TIN068

- 8.4.36 In summary, in my opinion, although not assessed in the LVIA, broadly, the effects of decommissioning would be similar to those experienced during construction. However, during decommissioning, the levels are likely to be highest at the start of the works, ie **Major Adverse (significant)** for High sensitivity receptors, and would gradually reduce to **Neutral** as the industrialising elements / activities / influences are removed, and the landscape regains its pre-development rural character and qualities.
- 8.4.37 See also construction route effects below, which would also presumably apply to decommissioning.

#### **Post-Project Effects on Landscape Character / 'Legacy Landscapes'**

- 8.4.38 LVIA para. 8.9.39 states that '*At decommissioning other than the buried cabling, all infrastructure would be removed with agricultural fields returned back to agriculture. Alternatively, the cables can be removed... The reinforced landscape however would be retained. As infrastructure is removed, there would be an overall benefit to the character of the area with landscape mitigation retained providing long term benefit towards legacy landscape*'.
- 8.4.39 Firstly, note that some effects could be permanent in terms of the loss of irreplaceable landscape features / habitats, others could potentially extend for decades beyond the decommissioning phase, for example damage to soils.
- 8.4.40 Secondly, as previously explained, there is no guarantee that agricultural fields could, or would, be 'returned back to agriculture'. Currently, the long-term effects of solar (and BESS) developments are unknown, so it is impossible to predict with any certainty what state the Scheme's landscapes will be like in 60+ years' time.
- 8.4.41 It is also impossible to predict the effects of climate and weather pattern changes, which are likely to result in changes to national and local priorities / abilities, especially in terms of food production, and landuse / farming practices.
- 8.4.42 In addition, as the LVIA acknowledges, landowners / managers will need built-in flexibility, so they can decide which landuse options to pursue nearer the time. They may not want to keep surviving landscape features introduced for mitigation purposes, or even enhancement, as they may not be compatible with continued agricultural / other use.
- 8.4.43 Indeed, even if the proposed meadow / pasture **is** considered to be enhancement and not mitigation, the Applicant's stated intention is to revert to former use ie arable, so it is likely that **much of the meadow / pasture would have to be removed**.
- 8.4.44 Thirdly, at para. 8.9.39, under the heading *Embedded Decommissioning Mitigation Measures*, the LVIA states that the '*landscape mitigation retained [would provide] long term benefit towards legacy landscape*'.
- 8.4.45 It is not clear whether the LVIA has double-counted mitigation and enhancement here, as the paragraph suggests. However, if this is referring to mitigation measures implemented at the start of the operation, as opposed to a) enhancements, and b) measures specifically required to reduce decommissioning effects which are introduced at the end, then in theory, the mitigation would no longer serve any purpose.
- 8.4.46 In that case, and assuming the planting / other measures were intact and healthy at that point, and there was a high level of certainty that they would remain in that state / *in situ* indefinitely, then they should count as a benefit, albeit likely to be small. However, being unsecured, there can be no certainty that the features would remain post-decommissioning.

- 8.4.47 Clarification of this point from the Applicant would be helpful. I may comment on this further when the extent of the enhancement and the extent to which it is secured is clarified. ###  
**clarification**

## 8.5 Indirect Effects on Landscape Character

- 8.5.1 Even if fully screened from view, development can result in **indirect** effects on the character of landscapes which are not directly affected by development, mainly in terms of how they are perceived and experienced.
- 8.5.2 In this case, during construction, operation, and decommissioning, **indirect** effects on character would occur a) on land within the Order Limits where no development / infrastructure would be located / other activities would take place, and b) beyond the Order Limits, including along the construction route (see next section).
- 8.5.3 Very importantly, **indirect adverse effects on character would occur within the CNL**, which is adjacent to sites Lime Down A and C, **as well as within its setting**.
- 8.5.4 The LVIA reports indirect effects on character within the Local, Wider and Outer Study Areas, which lie respectively 1km, 2km and 5km from the Order Limits.
- 8.5.5 In summary, the LVIA predicts that during **construction and Years 1 – 15 of operation**, the Scheme would give rise to **Moderate Adverse (significant)** indirect effects on the character of **all** landscapes / settlements lying within the Local Study Area (ie up to 1km from the Order Limits, **including the CNL**), and **Moderate – Minor Adverse (not significant) indirect** effects on **all** the landscapes / settlements lying within the Wider and Outer Study Areas (ie between 1 and 5km from the Order Limits, including the CNL).
- 8.5.6 Broadly (subject to notable localised variations), I **agree** that during construction and Years 1 – 15 of operation, the effects on the character of landscapes / settlements lying within 1km of the Limits would be **significant adverse**.
- 8.5.7 However, I am surprised by the LVIA's conclusion that during Years 1 – 15 of operation, levels of indirect effects on the overall character of the Local, Wider and Outer Study Areas would be **the same as** they would be during construction, ie **Moderate Adverse (significant)**. In my experience, it is unusual for an LVIA to conclude that levels of construction effects would be the same as even just Year 1 effects. Given the differences between the cause and nature of the effects during these phases – especially construction activity, noise, disturbance, lighting, visual intrusion and so on – it is usual for overall levels of both direct and indirect adverse effects during construction to be higher than during operation. This judgement may be due to the LVIA having stated the level of effect on the basis that it would be temporary, but the level would still be very high throughout the works.
- 8.5.8 Also, as mentioned previously, the LVIA does not factor in that levels of indirect effects on character tend to decrease gradually with distance, with the highest levels being closest to the development. Also, in theory at least, levels of adverse indirect effects on the visual aspects of character should reduce if the proposed screen planting establishes successfully. On that basis, in my opinion, the **highest** level of indirect effect on overall character would be **Major – Moderate Adverse (significant)**. The reasons why the LVIA underestimates levels of adverse effects is explained below.
- 8.5.9 The LVIA predicts that **between Years 15 and 60**, within the Local Study Area, levels of indirect effects would fall to **Moderate – Minor Adverse**, and within the Wider and Outer Study Areas, to **Minor Adverse**.

- 8.5.10 I do **not agree** that after Year 15, in **all** areas up to 5km from the Order Limits, the levels would fall **below** the significance threshold. This is partly because the size and scale of the Scheme is so large, it is inevitable that indirect effects on character would be experienced over large distances – see also below. However, it is essential to factor in that levels of effects decrease with distance. Therefore, in my opinion, **at and just beyond** the 1km study area boundary there would be **significant indirect adverse effects**, up to **Major – Moderate Adverse (significant)**. Beyond, gradually, the levels would decrease with distance to **Neutral**. At some point between 1km and 5km from the Order Limits, the level would be as predicted in the LVIA, ie **Moderate – Minor Adverse (not significant)**.
- 8.5.11 Also, between **Years 15 - 60**, the level of adverse effects on the visual aspects of character may decrease somewhat, but there is no guarantee that the vegetation which the LVIA assumes would screen views would establish successfully and remain in place.
- 8.5.12 During **decommissioning**, the LVIA predicts **Minor Adverse** indirect effects on **all** landscapes lying between 1 and 5km from the Order Limits.
- 8.5.13 However, as with direct effects, generally, the cause, nature, duration, extent and levels of decommissioning effects are likely to be similar to those which apply to construction effects, and levels decrease gradually with distance from the development. Also, levels of adverse decommissioning effects should reduce during the course of the works. Therefore, although not assessed in the LVIA, the **highest** level of indirect decommissioning effect would be **Major – Moderate Adverse (significant)**.
- 8.4.48 See also construction route effects below.
- 8.5.14 Importantly, as mentioned previously, whilst the magnitudes of effects of the construction and decommissioning works may be assessed on the basis of them being ‘short-term’, the direct effects would be **significant throughout the duration of the works**. Also it must be borne in mind that some effects would be **permanent**, for example damage to irreplaceable features / habitats.
- 8.5.15 In my opinion, the LVIA **underestimates** the levels of indirect adverse effects on landscape character, and thus the extent and duration of the effects which would be significant adverse. Also, there are a number of problems with the LVIA’s conclusions.
- 8.5.16 Some of the problems are explained in previous sections (see for example Sections 3 and 7), and all are relevant, but my main concerns relate to the LVIA’s lack of granular study and analysis; not factoring in the adverse effects of the proposed mitigating measures; double-counting mitigation as enhancement; and the erroneous assumption that visual screening mitigates all effects on character.
- 8.5.17 Regarding the latter point, many LVIAs, including the Applicant’s, erroneously assume that all indirect adverse effects on landscape character can be mitigated by screening views, but **that is not the case**.
- 8.5.18 High levels of adverse effects on a landscape’s positive experiential qualities (often referred to as perceptual and aesthetic qualities; also, cultural and ecosystem services), and its critical functions, can only **partially** be mitigated by screening views.
- 8.5.19 Of course views are an important aspect of how a landscape is experienced and perceived, and contribute to the *aesthetic* appreciation / enjoyment of what is experienced / perceived (predominantly related to a subjective visual sense-response such as ‘scenic beauty’ or a ‘sublime’ painting). However, **non-visual** sensory elements (sound, smell, touch) contribute to how individuals experience and perceive a landscape, and appreciate its wider functions (for example in terms of sensing space, wildness, and tranquillity, and feeling calm / safe; personal experiences and memories; and cultural associations. Development can affect how people travel

around / navigate through an area as well as what they see / experience / are aware of along the way.

- 8.5.20 I find that most LVIA's deal comprehensively with effects on views, but do not consider people's non-visual experiences. I have worked on assessments with people who are blind / partially-sighted, who say that blindness means their other senses, especially hearing, smell, and awareness, are heightened, resulting in higher levels of susceptibility to non-visual effects. They also say that they are rarely considered as receptors in LVIA's. I normally cover non-visual effects on human receptors in the character and / or amenity effects sections when considering the landscape's aesthetic / perceptual / experiential qualities, of which 'sight' is only a part (as shown on *Figure 1: What is landscape?*).
- 8.5.21 Indirect effects on a landscape's non-visual experiential qualities are not only more difficult to quantify, but also **much more difficult and sometimes impossible to mitigate**. Whilst screen planting (along with other measures such as location, siting, layout, design, and choice of materials and colours) may eventually help to **visually** integrate development into the receiving landscape (either as mitigation or enhancement – see above), **it would not reduce the other adverse experiential effects that would arise**, including along construction routes.
- 8.5.22 In this case, the LVIA **erroneously** assumes that over time, as the proposed planting matures, it would not only successfully screen views, but also **enhance** landscape character (albeit apparently in terms of landscape 'fabric' – see above), and therefore **reduce** levels of indirect adverse effects on character.
- 8.5.23 As explained previously, a) it is not safe to rely on vegetation to screen views in the longer term, and b) planting which is required for landscape / visual mitigation cannot be double-counted as landscape / visual enhancement.
- 8.5.24 It must also be noted that during construction and Years 1 – 15, the LVIA assesses and reports the reasonable worst-case as a **winter** scenario. However, between Years 15 and 60, the third bullet point at LVIA para. 8.4.2 states that effects are only '*assessed in **summer** with vegetation in leaf offering maximum screening potential*' (emphasis added). Evidently the latter approach does not reflect the reasonable worst-case scenario, as levels of the adverse effects on the visual aspects of character would be **lower** during the summer months. This approach is unexplained, and in my experience, does not reflect common practice – see visual effects in Section 10.
- 8.5.25 In addition, it is important to note that the proposed development would give rise to adverse indirect effects on **all** aspects of landscape character: as well as functions, aesthetic and perceptual qualities (especially tranquillity, which is one of the CNL's Special Qualities) and local distinctiveness / sense of place, there would be adverse effects on the settings of villages / properties (some of which are heritage assets), landscapes, biodiversity, green infrastructure, soil and water quality, visual, social, recreational and residential amenity, human health and well-being, and quality of life.
- 8.5.26 Regarding effects on **natural, cultural and social services and functions**, many of the landscapes within the Order Limits form an integral part of landscapes which perform multiple critical functions, some of which would be adversely affected to varying degrees, but some potentially **significantly**.
- 8.5.27 For example, the landscapes make highly important contributions to the settings of numerous significant heritage assets, including scheduled monuments, and Grade I and II\* listed buildings. Some of the villages are Conservation Areas.
- 8.5.28 Furthermore, the heritage assets make important contributions to the **High** levels of value attributed to their associated landscapes.

- 8.5.29 The proposed development would result in significant adverse effects on many of the assets' contextual landscapes, so where the landscape forms an integral part of an asset's setting, it is reasonable to assume that due to the large-scale industrialisation of the highly rural context, the proposed development would result in high levels of harm to the setting of the heritage asset.
- 8.5.30 Very importantly, solar panels in particular 'sterilise' and homogenise rural landscapes, where seasonal changes would otherwise be seen and experienced.
- 8.5.31 Best practice guidance (the previously-mentioned Historic England's publication *The Setting of Heritage Assets*) highlights the need to consider diurnal and seasonal changes. Often, seasonal changes manifest with views being more or less prominent in winter and summer respectively, as trees and hedges come into and go out of leaf. There is an obvious expectation for agricultural land to change with the seasons, for example as arable fields are ploughed, sown, tended, and harvested throughout the course of the year. Indeed, in rural areas, such changes are often celebrated with seasonal festivals and events, as has been the tradition for many hundreds if not thousands of years.
- 8.5.32 Solar development of this type and at this scale not only obscures views of the land itself, and introduces alien, industrial elements across a wide area, but also establishes a static, sterile year-round appearance which is very different from the character of seasonally-dynamic agricultural landscapes with constant rhythm and flow. This in turn could result in adverse effects on the settings of heritage assets which have their significance contributed to by an agricultural context in which they can be experienced and understood. This would extend as much to the brief periods of intense activity and noise associated with harvest as to the non-visual aspects – some perhaps much-changed from traditional practice, but still an unmistakable part of the farming year.
- 8.5.33 In addition, and also very importantly, currently many views of the heritage assets are from rural lanes, footpaths and properties, looking across the assets' contextual / associated landscapes. Given the proposal to let hedges grow up to 4.5m, it is inevitable that many such views would be lost, resulting in the total loss of the view and thus a high level of adverse visual effect – see Section 10.
- 8.5.34 The matter of over-reliance on vegetation to screen views – existing and / or proposed is explained in Section 7, but importantly, the setting of a heritage asset is neither necessarily determined by its present-day visibility, nor even by visibility *per se*.

## 8.6 Construction Route Character Effects

- 8.6.1 During all phases of the Scheme, but especially construction, interim works, and decommissioning, traffic associated with the Scheme would be directed to sites Lime Down A – E and the cable route corridors along pre-determined routes (here, generally, I use the word 'construction' also to apply to interim and decommissioning works).
- 8.6.2 This is highly likely to result in **significant direct and indirect adverse effects on various aspects of character, and visual and other amenity, within the CNL and its setting.**
- 8.6.3 Note that whilst the magnitudes of effects of the construction works may be assessed on the basis of them being 'short-term', many of the adverse effects would be **significant throughout the duration of the works**. Also it must be borne in mind that some effects would be **permanent**, for example damage to irreplaceable features / habitats.
- 8.6.4 In the Applicant's LVIA, there is only a very brief mention of landscape and visual effects along the construction route, at paras. 8.10.108 – 8.10.112; the cause, nature, extent and level of the

adverse effects that would and / or could arise, including effects on amenity / experience / safety, are not considered.

- 8.6.5 In [PDA-009], the Applicant's response to the CNLB's RR item ref. **CNL-007** states, '*It is recognised that there are some short-term construction effects within the CNL as a result of construction traffic and site access of abnormal loads. Details of this and the effect on the landscape are considered unavoidable, temporary, and **not significant***' (emphasis added).
- 8.6.6 I do **not agree** that the adverse effects would not be significant; nor do SLD's and the CNLB's highways experts.
- 8.6.7 The CNLB's RR [RR-0944] states, '*we still consider it likely that construction traffic would have a **significant adverse impact** upon the tranquillity of the National Landscape, one of its special qualities, and this would conflict with Policy CE5 of the CNL Management Plan. It would also not seek to further the purposes of CNL designation. Therefore, at this stage our position in terms of PMIE 4 is that **construction traffic should be routed outside of the CNL to avoid significant adverse impacts upon its tranquillity and landscape and scenic beauty***' (emphasis added; see also effects on tranquillity below).
- 8.6.8 SLD's highways expert's paper on Transport Matters deals with these matters in depth, and should be referred to for technical information about the subject. For reference, Figures 1 - 3 in the highways expert's report illustrate '*some of the key transport areas of concern during construction*'.
- 8.6.9 Also, the cause and nature of many of the landscape-related effects that would arise along the route are set out in Section 6 above, and explained further below where relevant.
- 8.6.10 As noted previously, and very importantly, the proposed construction route runs through the CNL and within its setting. These landscapes are of **High** sensitivity, as are many of the people who live in and visit them. Sections of the proposed construction route are along attractive, narrow rural lanes which are currently lightly-trafficked, so are popular with residents and visitors who enjoy using them for informal recreation within a high-quality landscape context, whether driving, walking / running, cycling, or horse-riding.
- 8.6.11 There are many constraints along these rural lanes, giving rise to what I consider to be justifiable concerns expressed by residents (and visitors) about very high levels of adverse effects on large numbers of receptors of various types caused by the volume and nature of construction traffic.
- 8.6.12 As well as Heavy Good Vehicles (HGVs), construction would entail the use of Special Types Vehicles (STVs). These carry large scheme elements eg substations (transformers), which are categorised as Abnormal Indivisible Loads (AILs), and which have to be transported by vehicles which exceed standard HGV size and weight limits. Once an STV is loaded with an AIL, the entire vehicle combination is categorised as an 'abnormal load' for the purpose of its journey. This term triggers a set of legal requirements (notifications and safety, and if the loads are very large, Special Orders).
- 8.6.13 STVs are subject to constraints such as bridge height / weight limits and road widths, and where the proposed construction route cannot accommodate these large and inflexible vehicles, measures have to be incorporated which include road-widening / the construction of passing places / removal of obstacles such as vegetation and other landscape features, and / or street furniture / kerbs in towns / villages, with associated likely high levels of adverse effects on landscape and views (and potentially, on amenity, safety, heritage, and ecology).

*Abnormal indivisible loads*



8.6.14 For construction traffic including STVs, the **primary** route to the western parts of the Scheme, including Lime Down A and C, is off M4 Junction 18, which, as the crow flies, lies c. 1km south west of the village of Tormarton, and c. 12.5km south west of the construction access into Lime Down A, south of Sherston.

8.6.15 From Lime Down A and C, construction traffic could travel to other parts of the Scheme along routes established within the Order Limits, for example along the cable corridors which are required between the five sites (Lime Down A – E). Note that access to Lime Down B would be along a corridor within the Order Limits which links to the construction route along the highway going to Lime Down A and C. Presumably that is due to the constraints associated with the road network in the vicinity, which include very narrow lanes, for example Foxley Road, tight bends, and an unsurfaced section of the Fosse Way – see below.

- 8.6.16 As an alternative to routes within the Order Limits, a route along highways is proposed which leads directly to the eastern parts of the Scheme, ie Lime Down D and E and associated cable corridors. The **secondary** route is off M4 J17, which is c. 16km / 10 miles' driving distance (along the motorway) east of J18. The route heads north along the A429 to reach Lime Down E, and branches off the A429 along the lane to Norton to reach Lime Down D (I believe the name of the lane to Norton is Bradfield Cottages).
- 8.6.17 Note that because the five sites are so dispersed and the cable route is so long, construction would entail the use of **56 access points**.
- 8.6.18 This section focusses on the **primary** route, which runs through the CNL, and would result in high levels of both **direct and indirect** adverse effects. The main reason for the focus is due to the CNLB's current position on the primary route, which as explained above is that '**construction traffic should be routed outside of the CNL**', due to the unacceptably high levels of adverse effects likely to arise.
- 8.6.19 However, whilst much of the **secondary** route is along the A429 – a busy road which appears likely to have the capacity to accommodate large construction vehicles, the section of the construction route which branches off the A429, along the lane to Norton, displays positive characteristics and qualities which are similar to those experienced along the primary route, with similar constraints, and use of the route by construction traffic would give rise to similar effects.
- 8.6.20 Positive characteristics / qualities along the lane to Norton include open landscapes with 'big' skies; good quality, scenically attractive rural / agricultural landscapes; heritage assets (the route passes close to Hullavington with (another) Grade I listed Church of St Mary, c. 100m from Grade I listed Bradfield Manor Farmhouse, and adjacent to Hullavington Airfield Conservation Area); and good informal recreational resource – the lane runs to / from the CNL, via Norton.
- 8.6.21 Constraints include narrow carriageway; narrow or absent verges; blind bends and summits; overhanging trees; and informal recreational use.
- 8.6.22 However, in comparison to the primary route, a) the adverse effects occurring along the secondary route would be experienced over a relatively short distance (c. 2.5km), and b) the secondary route is further from the CNL than the primary route, and the Applicant and the CNLB have agreed that for the purposes of the Scheme assessments, Lime Down D and E are not within the setting of the CNL.
- 8.6.23 To access Lime Down D, construction traffic would also have to follow a route off the lane to Norton, to the east. The route begins as a very narrow surfaced lane, bordered by mature vegetation, becoming a 'route with public access' north of the railway, and subsequently, a bridleway. The route is well used for informal recreation, especially by equestrians, because via the bridleway, the route leads to Corston and the more extensive bridleway network beyond.
- 8.6.24 In fact, whilst carrying out my assessments, I spoke to many equestrians, both visitors and residents, including people who run private and public equine businesses / establishments. I also researched the equine industry in both the wider region and the study area. I have some experience in these matters, personally and professionally.
- 8.6.25 I concluded that in the areas west and south of Malmesbury, as far as the A446 / A433 to the west, and the M4 to the south, there is a noticeably higher level of equestrian activity than in other parts of the study area, with a wide variety of horse-related activities and businesses.
- 8.6.26 These include professional eventing and dressage yards in villages such as Sherston, although many are in the vicinity of the (extensive) Badminton Estate – Grade I listed Badminton House lies c. 3.6km west of the Order Limits (Lime Down C). According to many, the Badminton Estate is central to the local equestrian culture. Every year, it hosts the annual Badminton Horse Trials,

which, the official websites<sup>1819</sup> say is 'the pinnacle of the worldwide horse trials calendar', attracting over 180,000 visitors from around the world. The Estate also maintains over 100 stables and yards used to house competition horses and support training throughout the year.

- 8.6.27 In the wider and local areas there are also several riding schools / trekking centres<sup>20</sup>; liveries; stud farms (for example at Ladyswood, which lies between Lime Down A and B, and close to C, and **adjacent** to the construction route); and professional racehorse training yards (Bath, Cheltenham and Newbury racecourses are within easy reach, along with several point-to-point courses). The Duke of Beaufort's Hunt (previously foxhunting, now trail hunting) operates in the area, and the Beaufort Polo Club is in Westonbirt (home of the National Arboretum, which lies c. 4km north west of Lime Down B).
- 8.6.28 As a result of the high intensity of equestrian use, the local road network is an essential resource for those involved in / who benefit from the industry, including associated businesses / trades such as vets, farriers, and feed merchants. Main and minor roads, including those along the proposed construction route, are regularly used for transporting horses (often in large horseboxes); riding (children, amateurs, and professionals); carriage driving; and on-lead training / exercising (apparently, exercising horses on roads / other hard surfaces builds tendon and bone strength).
- 8.6.29 Also, in particular, the minor roads in the areas west and south of Malmesbury (as far as the A446 / A433 to the west, and the M4 to the south) are well-used by people riding / leading horses because the local bridleway network is fragmented, and lanes provide the missing links. This can be ascertained from OS maps, and the various plans submitted by the Applicant and SLD, for example [APP-099] LVIA Figure 8.10: *Viewpoints*; also, Wiltshire Council's online Rights of Way Explorer map<sup>21</sup>, both of which highlight the different types of PRoW in different colours.
- 8.6.30 In my opinion, construction traffic associated with the proposed development has the potential to cause **significant adverse effects** on many of the above receptors, as explained below.

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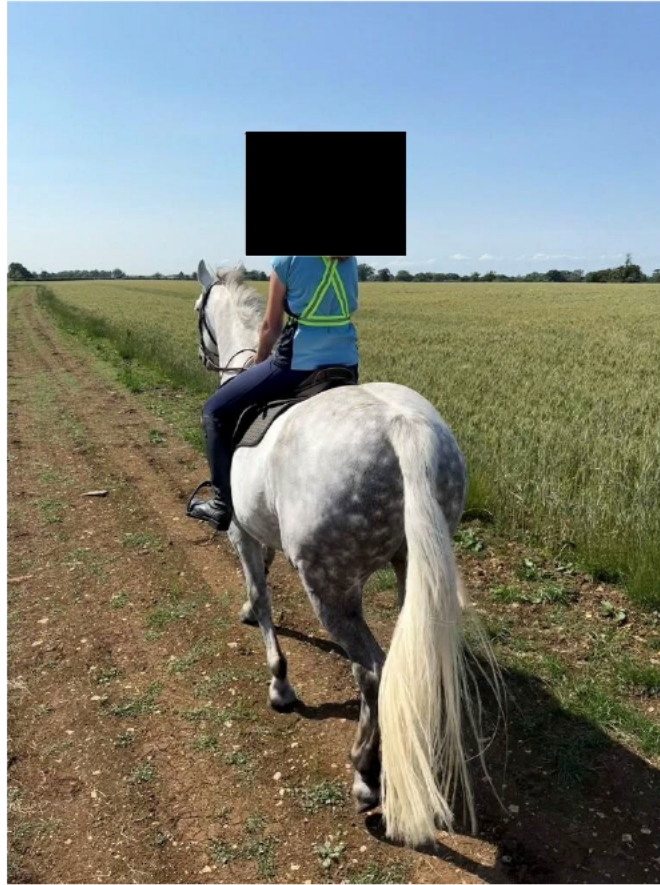
<sup>18</sup> <https://www.badminton-horse.co.uk/eventing-explained/#:~:text=Badminton%20is%20a%205%20star,number%20of%20years%20to%20achieve.>

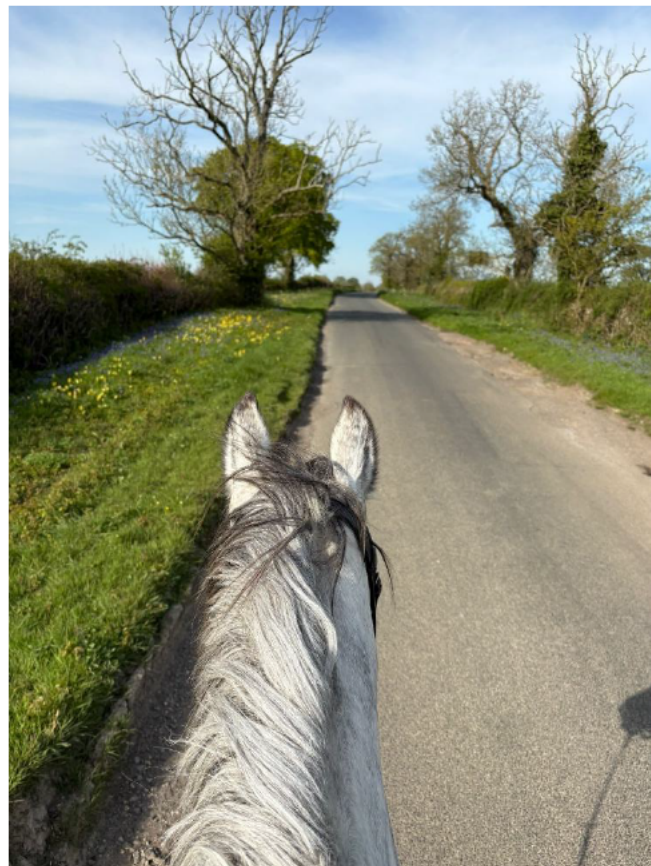
<sup>19</sup> [www.badminton-horse.co.uk](http://www.badminton-horse.co.uk)

<sup>20</sup> The CNLB publishes information and guidance on horse riding and horse-keeping in the CNL, including position statements, trail resources, and planning advice, highlighting the economic and cultural importance of the equestrian sector to the region. See also the BHS's publication *The Cotswolds on Horseback*.

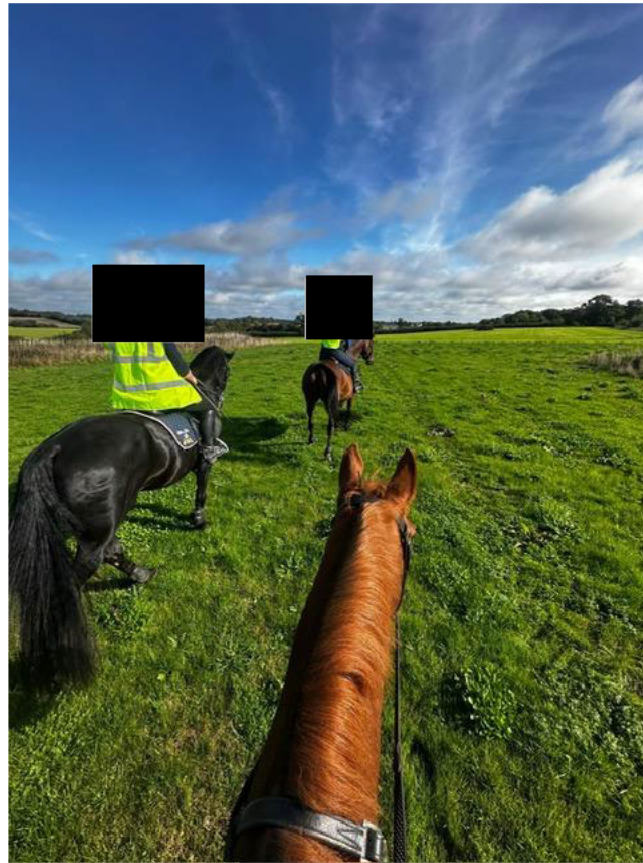
<sup>21</sup> <https://experience.arcgis.com/experience/cae051befa5649fbb318c836afe901c1/page/Page/>

*Photographs taken by equestrians riding along lanes and bridleways / BOATs running through and in the vicinity of the Scheme*









#### **Primary Construction Route: Character**

- 8.6.31 The driving distance between J18 and access into Lime Down A is c. 20km / 12 miles. The majority of the route is within the CNL. The first section of the route, heading north along the A46 to Old Sodbury and the junction with the B4040 is not problematic as it is a busy road with limited non-vehicular recreational use.
- 8.6.32 From the A46, the construction route heads east along the B4040. This is the main route between Malmesbury and Chipping Sodbury, and is therefore used by many people travelling to and from the CNL for recreational / leisure purposes.
- 8.6.33 The western section of the B4040 has quite good forward visibility, and there is an occasional long passing bay, but there are a few blind bends and summits, and occasional overhanging trees. The road is evidently used by many 'road' cyclists, but apparently less so by pedestrians and equestrians, apart from in the villages through which it passes.
- 8.6.34 The landscapes here are typical of the CNL and display many of its Special Qualities, especially *large open, elevated predominately farmed landscape with commons, 'big' skies and long-distance views... distinctive dry stone walls... and ancient broadleaved woodland*'. Even along the road corridor, *the tranquillity of the area* is evident. A line of pylons crossing this part of the CNL is a detractor, but of course, the presence of pylons does not preclude designation.

*View looking north east from B4040*



- 8.6.35 At Acton Turville, the construction route turns south east along the B4039. At Burton, south of the M4, the road narrows significantly, and in sections there is no footway or refuge. Also, forward visibility is limited, there are limited opportunities for vehicles to pull in to allow another to pass, and reversing is dangerous – see image below. Also note the overhanging trees.

*B4039 at Burton looking east (imagery © 2026 Google)*



- 8.6.36 Like Acton Turville, and to some extent, the Gibb, north of Castle Combe, Burton is a small, quintessentially 'Cotswold' village with highly characteristic, locally-distinctive features especially honey-coloured stone buildings and walls typical of many within the CNL including those on the eastern edges such as Easton Grey and Sherston, and which give rise to the '*strong sense of unity for which the Cotswolds are renowned*' (see Section 4). Burton boasts the Grade I listed Church of St Mary (Acton Turville's Parish Church of St Mary is Grade II\* listed, and the village is a Conservation Area). As can be seen in the above photo, some properties open directly onto the back of narrow footways, very close to passing traffic.
- 8.6.37 However, although these villages display Saxon / medieval influences, traces of ancient landscape intervention and use are clearly visible. Evidence of Roman activity and settlement are widespread (partly due to the presence of the Fosse Way, probably the most well-known Roman road in Britain, and now a routeway that attracts visitors, especially walkers, from around the world), and many of the Roman features overlie those with prehistoric origins. Around Burton, human activity is known to have occurred during and since Neolithic times, with features including ditches, trackways, and burial sites. See also below.
- 8.6.38 In addition, in Burton village centre, **the construction route is crossed by the Macmillan Way long distance trail.**
- 8.6.39 At the Gibb, the construction route turns north east along the Fosse Way, going under the M4. At Littleton Drew (Grade II\* listed Church of All Saints and scheduled churchyard cross), the route diverts east then north via Grittleton, to avoid an unsurfaced section of the Fosse Way, rejoining it further north.
- 8.6.40 Grittleton is also a typical Cotswold village. As well as its own Grade I listed Church of St Mary, historic buildings include the Grade II\* Baptist Chapel and Grade II\* Grittleton House, and it is a Conservation Area. This village also has ancient origins. The lanes are narrow, with blind bends, and overhanging trees. They run through high quality (**High** sensitivity) rural landscapes, and are well used by walkers, equestrians, and cyclists.
- 8.6.41 Note that between Grittleton and the junction with Church Road at the southernmost part of Lime Down C, the construction route is along the **Wiltshire Cycleway** (previously National Cycle Network (NCN) route no. 254), which continues along the Fosse Way to the Church Road junction.
- 8.6.42 The part of the route running along the surfaced section of the Fosse Way (also a byway open to all traffic (BOAT)) which runs between the lane from Grittleton and the Church Road junction, is within the CNL. Church Road runs along the CNL's eastern boundary, with Lime Down C adjacent to the east. From this point, the construction route continues north-eastwards along the Fosse Way for a distance of c. **2.6km**, within the CNL's setting. Lime Down C / cable corridors are adjacent to the west and east, with Lime Down D further east, and Lime Down A to the north of Lime Down C.
- 8.6.43 The contextual landscapes, which include Lime Down A and C, are also high quality / High sensitivity, with qualities which are enjoyed by residents and visitors alike. They are characteristically open, and highly rural. Landuse is agricultural, predominantly arable fields with some permanent pasture, and a few blocks and belts of woodland, most of which is plantation, although there is a small remnant of ancient woodland (replanted) at Lordswood (a property adjacent to Lime Down A and C). Field boundaries and roadside hedges are mixed native species including **elm** (see Section 7), mostly well-managed, often lined with the occasional escaped mature oak and ash tree, although the latter are suffering from dieback disease. Along many sections of the road, there are wide grassed verges.
- 8.6.44 At Ladyswood, the Fosse Way becomes an unsurfaced BOAT. At this point, the route turns north west, running along the lane which leads to Sherston, with Lime Down A adjacent to the south. The access to Lime Down A is c. 1km from the Ladyswood junction.

- 8.6.45 The character of this lane is different from that of the Fosse Way: it is not as straight, and is more enclosed by mature roadside vegetation which hangs low over the road.

*Lane leading to Lime Down A (image © 2026 Google)*



- 8.6.46 Some sections of the hedge along the west side of the lane where Lime Down A would be located, including at the proposed (existing) access point are single-species **elm**.
- 8.6.47 My research<sup>22</sup> suggests that this lane is part of an ancient (pre-Roman) trackway, which is now variously lanes (including Pig Lane, which runs through Lime Down C), BOATs, bridleway, and footpath, including long-distance trails such as the Macmillan Way. The route runs north east – south west between Chippenham (possible Neolithic origins) and the edge of the Cotswold escarpment at Brock Hill / Lasborough (north west of Leighterton), where there is a cluster of now-scheduled bowl barrows, which are funerary monuments dating from the Late Neolithic period to the Late Bronze Age. Other routes in the area with ancient origins appear to lead to this point.
- 8.6.48 In summary, due in large part to the combination of their positive qualities and the range of important functions they perform, these landscapes are highly-valued, and highly susceptible to the large scale, industrialising form of change which is proposed. The LVIA concludes, and I **agree**, that the landscapes through which the construction route would run, within both the CNL and its setting (the latter including much of the Scheme), are of **High** sensitivity.
- 8.6.49 However, note a) localised variations, and b) the problem with the LVIA's four-point scale – in theory, the weight of the CNL designation should confer a higher level of value than within the setting (on a balanced five-point scale, the CNL would be Very High, its setting, High).
- 8.6.50 Conversely, also note that – as explained in Section 5 – several years ago, the land between the CNL's eastern boundary and a point east of the Fosse Way, where the Scheme is located, was a candidate for AONB designation. According to the publication *Designation History Series: Cotswolds AONB* mentioned in Section 5, Malmesbury Rural District Council (MRDC) 'considered

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<sup>22</sup> Research included information produced by local historian David Mitchell, known for his research into the ancient North Wessex Way (<https://northwessexway.co.uk>).

*that the division of their district between the AONB and the rest was not justified and sought total inclusion of the District in the AONB'.*

- 8.6.51 In those days, the main criterion for selection was 'scenic' and / or 'outstanding natural beauty', which is now considered 'subjective', applying to landscapes appealing predominantly to the visual senses. As explained in Section 3, in recent times, it is widely recognised that effects on 'character' are, or should be, a more important consideration than effects on 'views' (arguably, but see *Figure 1: What is landscape?*, and the small proportion of the wheel devoted to 'sight'), and 'beauty' is not superficial. 'Beauty' has recently been defined as '*everything that promotes a healthy and happy life*', and in that context, '*should be an essential condition for the grant of planning permission*'<sup>23</sup>.
- 8.6.52 These landscapes are predominantly of high quality, with very few detractors, many positive characteristics, and high levels of positive aesthetic, perceptual and experiential qualities, which include being locally distinctive, with a strong sense of place; highly rural, and sparsely-settled; very tranquil; well-managed; visible time-depth; and biodiversity.
- 8.6.53 The landscapes also offer high quality 'natural' / informal recreational resources which are important to residents and visitors alike, many of the latter coming from around the world to enjoy them.
- 8.6.54 As previously mentioned, there are many cyclists and pedestrians, and I observed a few motorised wheelchair users. Also, the lightly-trafficked lanes (and BOATs) are well used by equestrians. The lanes / BOATs are a critical resource for riding / exercising horses because there are so few bridleways in the area, and the lanes / BOATs connect those which do exist. Both riders and horses are highly sensitive receptors, and it I likely there would be conflict between users and construction traffic – see effects below.

#### **Primary Construction Route: Effects**

- 8.6.55 As explained above, the Applicant's LVIA only briefly mentions landscape and visual effects along the construction / decommissioning route; the cause, nature, extent and level of the adverse effects that would and / or could arise, including effects on amenity / experience / safety, are not considered.
- 8.6.56 In [PDA-009], the Applicant's response to the CNLB's RR item ref. **CNL-007** states, '*It is recognised that there are some short-term construction effects within the CNL as a result of construction traffic and site access of abnormal loads. Details of this and the effect on the landscape are considered unavoidable, temporary, and **not significant***' (emphasis added).
- 8.6.57 I do **not agree** with this conclusion.
- 8.6.58 My own assessment concluded that construction traffic travelling along the proposed routes is highly likely to result in **significant direct and indirect adverse effects** on landscape and views; recreational / social amenity; and mental and physical health and wellbeing.
- 8.6.59 According to [APP-187] LVIA Table 8.1.1.14, the combination of a **High** sensitivity landscape / visual / amenity receptor (identified in previous sections) and a **High** level of magnitude of adverse effect (likely but not certain to mainly be direct adverse effects arising from eg loss of irreplaceable habitats / features, and amenity / highway safety), results in the level of overall effect being **Major Adverse (significant)**.

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<sup>23</sup> Executive summary, *Living with Beauty* Building Better, Building Beautiful Commission (BBBBC), January 2020. The BBBBC was established as an independent advisory body set up by the Ministry of Housing, Communities and Local Government (MHCLG), to advise the government on promoting high-quality design in 'homes and neighbourhoods'.

- 8.6.60 Note that for **High** sensitivity receptors, even a **Low** magnitude of adverse effect results in a **Moderate Adverse** effect, which is **significant**.
- 8.6.61 Also, as explained below, SLD's highways expert's assessment explains that many minor roads / lanes are **unsuitable** for the type of construction traffic required to construct, maintain, and deconstruct schemes such as this, including STVs. The assessment concludes that in this case, along the construction route, many lanes are narrow and 'constrained', with '*highly constrained forward visibility*'. This is due to factors such as tight and 'blind' bends; blind summits; '*hedgerows, trees and other structures located close to the carriageway edge*'; and other constraints (note that some PRow links are across roads).
- 8.6.62 As a result of these and other factors, construction traffic could **severely compromise highway safety**. Along many of the lanes there is potential for conflict between users which include walkers, runners, cyclists, equestrians, and various animals, often with limited or no refuge / room to stand out of the way.
- 8.6.63 As mentioned previously, the CNLB's current position on the primary route is that '**construction traffic should be routed outside of the CNL**' due to the various adverse effects likely to arise.
- 8.6.64 In addition, the Applicant estimates that the construction phase would last around two years, and describes this length of time as 'short term'. However, at para. 2.29, SLD's highways expert's assessment states that '*the application of 'short-term' to down-play the significance of highway safety risks arising from the use of narrow rural lanes by construction HGVs is not justifiable. Were effects properly to be assessed, given the particular concerns identified above, it is likely there would be a **considerable uplift in the significance of highway safety risks***' (emphasis added).
- 8.6.65 As mentioned previously, the LVIA's judgement that construction effects would only be 'Moderate Adverse' is mainly based on the works being temporary. Relative to the lifetime of the Scheme, the works may be considered 'short-term', but overall, the effects would still be **significant adverse for the duration of the works**.
- 8.6.66 Importantly, as mentioned previously, whilst the magnitudes of effects of the construction works may be assessed on the basis of them being 'short-term', many of the adverse effects would be **significant throughout the duration of the works**. Also it must be borne in mind that some effects would be **permanent**, for example damage to irreplaceable features / habitats.
- 8.6.67 Section 2 of SLD's highways expert's report explains that according to para. A.6.3 of HS2's *Design Approach Statement – Roads*, on rural roads where HGVs are likely to pass each other on a regular basis, the minimum road width should be **6.8m**. In this case, the carriageway width of many of the local roads earmarked for construction traffic including AILs is less than 5.5m (according to para. 2.42, sections of one lane are c. **3.4m** wide), and as mentioned above, there are many constraints along the route.

Lane north of Lime Down A, looking north (image © 2026 Google)



- 8.6.68 The proposed measures that would be required to accommodate construction vehicles include road widening, and the creation of passing bays (according to SLD's highways expert, for HGVs, the bays would be 'at least 25m in length including tapers allowing access into and out of the bay'). This could involve the removal of landscape features such as hedges and verges.
- 8.6.69 Para. 6.3 of SLD's highways expert's report states, 'At some points the AIL vehicle requires a substantially wider gap in the existing roadside vegetation than the access for standard vehicles. However, the plans do not indicate the width at each entry that would need to be cleared of vegetation. Paragraph 9.10.137 of Chapter 9 states that a total of 327m of hedgerow would be removed to facilitate access to the solar array sites and that this figure has been derived from the drawings in the TA. These drawings do not identify the lengths of hedgerows removed to accommodate the access itself and do not identify the lengths of hedgerow that would need to be removed to achieve safe visibility splays. As described above, several drawings fail to show the path of an AIL vehicle at access points that are proposed to be used by AIL vehicles. If these drawings have been used to assess the amount of vegetation lost, they fail to take account of AIL vehicle impacts in a number of areas'.
- 8.6.70 In my opinion, without this information, the landscape, visual, amenity, ecological, and other effects cannot be fully assessed and understood, and it would be helpful if the Applicant could provide it. **### request for information**
- 8.6.71 Due to the 'constraints' described above, construction traffic is highly likely to cause physical damage to, and / or temporary and / or permanent loss of, 'soft' roadside landscape elements such as overhanging trees, hedges, verges, banks, and ditches, along with 'hard' elements / features and structures such as buildings, walls and bridges, and probably, the surface of the road itself.
- 8.6.72 An example of where large / heavy vehicles have damaged verges can be found along the Fosse Way, at an existing agricultural gateway at the northern end of Lime Down B, which would serve as an operational maintenance access. As shown in the photo overleaf, the damage appears to have been caused by regular agricultural use, where large farm vehicles cannot turn into / out of

the field without running onto the verges because the lane is so narrow, effectively having to widen the lane.

*Verges at existing agricultural gateway / proposed operational access at northern end of Lime Down B, looking south west along unsurfaced section of Fosse Way*



- 8.6.73 Regarding the effects of the passing bays, at para. 2.38, SLD's highways expert's report concludes that '*In many areas, the ability to deliver [at least 25m long] passing bays is constrained by roadside vegetation, ditches and embankments. If the applicant were to seek to introduce a series of passing bays, **the impacts in terms of vegetation removal, culverts/waterways and landscape could be significant.** It is likely that most of the lanes south-west of Rodbourne will need to be widened in addition to providing passing places. The low standard of the lanes suggests that **the extent of highway works could be substantial.** There has been **no assessment** made of either the ability to deliver this widening or the impact of such works. In this respect, **the assessments do not meet the requirement of a reasonable worst case'** (emphasis added).*
- 8.6.74 These physical changes would directly and indirectly adversely affect the character of the landscapes along the route, to different degrees.
- 8.6.75 As noted above, some of the lanes follow the lines of ancient trackways, and are bordered by equally ancient, species-rich hedgerows. Currently, many of the lanes along the route are used regularly for informal recreational purposes by residents and visitors alike, because they are lightly-trafficked, and are within a high quality landscape context – many of those who use them do so with the primary aim of enjoying the landscapes' special qualities, both visual and non-visual.
- 8.6.76 As mentioned previously, many equestrians use the quiet lanes for riding and exercising horses. Both are highly sensitive receptors, and horses can be extremely unpredictable in how they react under certain circumstances such as being faced with / passed by vehicles, especially where there are blind bends and summits and other features which limit / obstruct visibility. When encountering horses on roads, para. 215 of the Highway Code advises drivers to '*pass wide and slow, allowing at least 2 metres of space*'. Even on roads with a width of 5.5m, HGVs exceed this safety margin. Here, it is important to note that along some sections of the lanes there are no verges for refuge.

- 8.6.77 Not only could local businesses / tradespeople serving / supporting the equine industry be adversely affected, but also other businesses / trades which rely on tourism, especially people who visit the area to enjoy its special qualities – see reference to research carried out on this subject in Section 9.
- 8.6.78 In summary, whilst there are many reasons why the adverse effects likely to occur / be experienced along the construction route would and / or could be significant, it appears that one of the main concerns is the **safety** of highway users being **severely compromised**. Along many of the lanes there is potential for conflict between users which include walkers, runners, cyclists, equestrians, and various animals, often with limited or no refuge / room to stand out of the way.
- 8.6.79 At para. 2.35, SLD's highways expert's report states that along part of the route, '*Drivers would be unaware of an oncoming HGV until part-way around a bend. Since the carriageway is less than 5.5m in places and HGVs are likely to take up additional road width around bends, this is a **highly dangerous situation***' (emphasis added).
- 8.6.80 Section 11 of the highways expert's report considers the adverse effects of glint and glare on highway users and their safety – see also Section 11 of this (my) report.
- 8.6.81 At para. 7.3, the report concludes that '*the applicant has not properly assessed the potential for the development to lead to **unacceptable impacts on vulnerable highway users**, contrary to the requirements of EN-1*' (emphasis added).
- 8.6.82 the CNLB's current position on the primary route is that '**construction traffic should be routed outside of the CNL**' due to the various adverse effects likely to arise.
- 8.6.83 Para. 2.2 of SLD's highways expert's report explains that 'Paragraph 5.14.21 of EN-1 identifies an unacceptable impact on highway safety as a **reason to consider refusal of an application**' (emphasis added).

*Photographs taken by equestrians riding along lanes and bridleways / BOATs running through and in the vicinity of the Scheme*







## 8.7 Effects on Character: CNL

- 8.7.1 As explained in the previous sections, the Applicant's LVIA concludes, and I **agree**, that the proposed development would result in a) **significant direct adverse** effects on the overall character of sites Lime Down A – E, and b) **significant indirect** effects on landscapes, villages, settlements, and properties lying beyond the Order Limits, up to a distance of at least 1km.
- 8.7.2 The **significant indirect adverse** effects on character would be experienced within the CNL, the eastern boundary of which is contiguous with the western boundary of the Order Limits. **Significant direct adverse** effects on character would occur within the CNL's setting.
- 8.7.3 Levels of effects (adverse or beneficial) would be highest closest to the Order Limits, and would decrease gradually with distance from the development, eventually reducing to Neutral.
- 8.7.4 There is **not agreement** about whether the direct and indirect adverse effects arising along the construction route would be 'significant'. However, as explained in the previous section, in my opinion, and that of both SLD's transport expert and the CNLB, where the construction route runs through the designated area, it would result in **significant direct and indirect** adverse effects on the CNL, and its setting.
- 8.7.5 Note that the CNLB's RR [RR-0944] states, that '*Notwithstanding the proposed mitigation and enhancement measures, the Board notes that Section 2.4 of Appendix 8-6 identifies that the proposal may give rise to **several significant adverse landscape and visual effects** relating to the CNL and its setting', including construction traffic, which '*should be routed outside of the CNL to avoid **significant adverse impacts** upon its tranquillity and landscape and scenic beauty*' (emphasis added).*
- 8.7.6 Also, my own assessment concluded that for a number of reasons, the LVIA underestimated the levels of adverse effects.

- 8.7.7 For example, the LVIA erroneously assumes that all adverse effects on character can be mitigated by screening views, which is not the case – non-visual effects cannot be mitigated by screening.
- 8.7.8 Also, over-reliance is placed upon existing and proposed vegetation to screen views, including views from and towards the CNL, and mitigate the impact upon the landscapes within the CNL's setting.
- 8.7.9 In addition, note that effects would be significant adverse despite the proposed 'embedded' mitigation measures put specifically in place to reduce levels of harm on the CNL and its setting, such as 'buffer zones' on sites adjacent to the CNL boundary where no panels or other infrastructure would be located.
- 8.7.10 The adverse effects include those arising from the proposed mitigation measures, such as 4.5m tall hedges which in many parts are uncharacteristic, and would result in loss of openness (and total loss of view), although some hedges along the CNL boundary would be managed at 1.5m to maintain open views from within the CNL looking east, and within its setting looking west towards it – see below.
- 8.7.11 However, in terms of effects on the character of the CNL's landscapes and Special Qualities, and in particular the question of whether the Scheme complies with s. 85 of the Countryside and Rights of Way Act 2000 duty (which is to '**further the purpose of conserving and enhancing the natural beauty**' of the CNL), the **central** matter relates to the LVIA having erroneously double-counted landscape / visual mitigation measures as landscape / visual enhancements (see Section 7).
- 8.7.12 In summary, as explained previously, the LVIA did not appear to assess effects on the overall character of the sites, only their landscape 'fabric', or elements (such as hedges and trees), which are only one aspect of character.
- 8.7.13 It concludes that after 15 years of operation, the 'fabric' would have established and matured to the point where the proposed development would not only result in **significant beneficial effects** on the character of the sites (albeit 'fabric' and overall character were conflated), but also in '**beneficial landscape effects within the setting of the CNL in the long term which would further the purposes of the designation**' (LVIA para. 8.10.140, emphasis added).
- 8.7.14 Evidently, I do **not agree** with this conclusion, because the new / restored 'fabric' is proposed as mitigation, and therefore cannot be double-counted as enhancement. Thus, at best, effects on, and of, landscape 'fabric' would be **Neutral**, and at worst, **significant adverse**, due to the mitigation measures giving rise to adverse effects on character and views for reasons such as inappropriateness, loss of openness, and total loss of view, especially where openness / open views are key characteristics of the CNL and other LCTs / LCAs.
- 8.7.15 However, now, the Applicant has clarified the LVIA's conclusions about effects on overall character. The Applicant's response to item ref. **SLD-024 [PDA-009]** states, '*It is **fully acknowledged that at the Site level, the character of the Site itself (where there is infrastructure) would be Significantly Adversely affected with the land now presenting as a large scale solar scheme, as with the development of any green field Site***' (emphasis added).
- 8.7.16 Therefore, even if *some* of the 'fabric' (and other 'soft' landscape measures) is definitely enhancement, not mitigation, in my opinion, **the benefit is fully outweighed by the harm to overall character.**
- 8.7.17 Much if not all of the proposed 'fabric' is required for mitigation, ie to reduce high levels of adverse effects on views / the visual aspects of character, so it is likely that the quantity / amount of 'fabric' that *would* be 'enhancement' would be negligible in comparison to the very large area across

which ‘overall character’ would be adversely affected – ‘fabric’ is just one of many factors that contribute to overall character.

- 8.7.18 This is of **great relevance** to the CNL, especially in terms of whether the Scheme would further the purposes of the designation.
- 8.7.19 CNLB’s RR summarises the Board’s position on development and infrastructure proposals within the CNL and its setting, stating that they *‘should be delivered in a way that is compatible with and seeks to further the purpose of increasing the understanding and enjoyment of the CNL’s special qualities. They should also contribute to the economic and social wellbeing of CNL communities, in a way that is compatible with conserving and enhancing the natural beauty of the CNL’*.
- 8.7.20 LVIA para. 8.9.17 states that *‘In order to ‘further the purpose’ of the Cotswolds National Landscape to conserve and enhance its natural beauty... the Scheme also includes **positive enhancement measures** which... are incorporated into the Indicative Masterplans: ES Volume 2, Figure 3-4: Landscape and Ecology **Mitigation Plan...**’* (emphasis added).
- 8.7.21 LVIA para. 8.10.133 states, *‘In accordance with the duty to ‘seek to further’ the purpose of the CNL, the **positive benefits of the Scheme within Lime Down Site A-C within the setting of the CNL** are set out [sic] Table 8-28* (emphasis added). Table 8-28 is called **Mitigation Quantities within setting of the CNL**, and it lists the **mitigating** measures in the previously-mentioned tables.
- 8.7.22 LVIA para. 8.10.134 explains that *‘The landscape and visual effects of the Scheme on the CNL and its Special Qualities have been **mitigated** throughout the landscape led, iterative design process...’* (emphasis added), and summarises the ‘Embedded **mitigation**’. However, the paragraph goes on to describe ‘Positive **enhancements**’. As explained in Section 7, it is not clear whether these are also ‘embedded’ mitigation measures, proposed to reduce the adverse effects of the Scheme on landscape and views generally, or whether they are not proposed for this purpose but specifically and only to ‘further the purpose of the CNL’. Clarification of this particular point would be helpful. ### **clarification**
- 8.7.23 Notwithstanding the above, in my opinion it is clear that certain measures which the LVIA counts as enhancements / benefits are in fact mitigating measures.
- 8.7.24 For example, the open grassland buffer zones proposed between the edges of the array / infrastructure and the CNL are certainly mitigating measures, designed to move the Scheme elements away from the CNL boundary, although in my opinion, the buffers would do little to reduce the perception of the sheer size and scale of the Scheme.
- 8.7.25 Also, as mentioned in Section 7, both Wiltshire Council’s Landscape Officer and the CNLB’s experts have expressed concerns about the LVIA having double-counted mitigation as enhancement – along with the adverse effects arising from the proposed mitigating measures – and the important implications in terms of judgements made about the weights of harm vs benefit in the planning balance.
- 8.7.26 The CNLB’s RR [RR-0944] states (with emphasis added):  
*‘The Board considers that maintaining hedgerows at their current height should **not be considered as an enhancement** to the CNL and its setting. This results in the enhancements proposed consisting of the creation of wildflower meadows in a few fields and creation of wildflower meadow verges in three fields, which **arguably could also be considered mitigation** given their purpose to ‘provide attractive buffers [to the proposed solar development] in views from public roads on the edge of the CNL.*

*'Moreover, in several places within the submission, mitigation measures and enhancement (considered to be measures which demonstrably add value to the host landscape, creating a positive change above its baseline condition) measures appear to be **conflated**.'*

### **Effects on Tranquillity**

- 8.7.27 One of the most important aspects of character that in my opinion would be significantly adversely affected by the proposal is **tranquillity**, which is becoming an increasingly rare commodity, and here, a landscape quality highly prized by residents and visitors alike.
- 8.7.28 As explained previously, not only is tranquillity one of the CNL's Special Qualities, but also, high levels of tranquillity can be experienced within its setting and other parts of the study area.
- 8.7.29 It is the subject of Policy CE5 of the CNL Management Plan 2025 - 2030. Policy CE5.1 states, *'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'*.
- 8.7.30 Page 42 of the CNL Management Plan explains that because there are several aspects to 'tranquillity' (some of which are explained in Section 6 of this report), *'Policy CE1 addresses visual impacts and Policy CE6 addresses light pollution. Policy CE5 has an emphasis on noise. This incorporates issues such as significant increases in traffic in the towns, villages, smaller settlements and across the wider countryside of the CNL, including **increased traffic arising from developments outside of the CNL**'* (emphasis added).
- 8.7.31 On page 117, in the context of 'major development', the Management Plan states that *'consideration should also be given to impacts on [natural beauty] criteria **within the setting of the CNL**, particularly in the context of visual impact (i.e. views into and out of the CNL) and impacts on tranquillity'* (emphasis added).
- 8.7.32 According to the Cotswolds Conservation Board (CCB)'s *Position Statement on Tranquillity* (2019), under the heading 4.5 *Traffic and vehicle movements*, on page 13, *'an increase in traffic flows - or HGV numbers - of **more than 10% is likely to be significant** and have an **adverse impact on the tranquillity of the Cotswolds AONB**. However, there may be circumstances where a lower threshold would be appropriate, for example, where there is a particularly high landscape - or historic - sensitivity or where impacts on tranquillity are already significant, including cumulative impacts'*.
- 8.7.33 SLD's highways expert's report states that *'An assessment of HGV trip generation for the solar array areas based on reasonable assumptions identifies a total (65,813 HGV movements) that is **152% higher than that identified by the applicant** (26,086 HGV movements.'* (para. 13.14, emphasis added).
- 8.7.34 One of the *Position Statement's* 'Over-Arching Recommendations' for tranquillity is that *'All relevant stakeholders should ensure that activities and proposals that affect - or have the potential to impact on - the tranquillity of the Cotswolds AONB give **great weight** to conserving and enhancing the tranquillity of the AONB'* (emphasis added).
- 8.7.35 Note that I do **not agree** with some of the conclusions about effects on the CNL's Special Qualities set out in Table 2-1 of the Applicant's *Tranquillity Technical Note* March 2026 Revision 1 [**PDA-010**].
- 8.7.36 The purpose of the note is set out in paras. 1.1.3 and 1.1.4, which explain that the Applicant has addressed tranquillity in several parts of the Application, so the purpose of the Technical Note is to identify the relevant documents, with references; and provide a summary of where tranquillity is considered within the landscape and visual and other chapters / appendices of the ES.

- 8.7.37 For Special Quality 9 – *Tranquillity*, the conclusion is that '***Tranquillity remains intact for the CNL, with only negligible-minor localised change persisting at a few viewpoints within the setting of the CNL. Long term effect: Negligible-Minor adverse (localised)***' (emphasis added).
- 8.7.38 Evidently, in the light of my conclusions above about the cause, nature, extent, and high level of adverse effects that would arise and adversely affect tranquillity, I do **not agree** with this statement. Also, in my opinion the judgement is flawed because the only criteria stated are **visual** – see definition of tranquillity in Section 6.2; also, the judgement assumes the effects would only be experienced at those locations, and has not considered adverse **sequential** visual effects.
- 8.7.39 For 12 – *An Accessible Landscape*, the conclusion is that '*The qualities of quiet recreation routes within the CNL remain intact, with no influence on users' enjoyment and experience. The Scheme proposes 12.8 km of new permissive paths which aid this Special Quality*'. I do **not agree** that the proposed development would have 'no influence on users' enjoyment and experience', as explained above, and in Sections 9 and 10.
- 8.7.40 In my opinion, many of the impacts and effects arising from the Scheme that would adversely affect tranquillity could **not be avoided**. Whilst the Applicant has made some effort to minimise noise and disturbance, it is inevitable that on a project of this nature, and of such a very large scale, '**minimisation**' is **not sufficient to bring levels down below the significance threshold**.
- 8.7.41 Even during much of the operational phase, when the sites would not be as active / noisy / disturbing as they would be during construction / interim works / decommissioning, there is no doubt that the proposed development would result in **significant adverse effects on tranquillity, including within the CNL** (Section 6.2 explains the various aspects of tranquillity that would be affected).
- 8.7.42 As noted above, the significant adverse effects on tranquillity are one of the CNLB's major concerns, to the point that their recommendation is for the proposed construction route to be removed from within the CNL.
- 8.7.43 The CNLB's RR [RR-0944] states, '*we still consider it likely that construction traffic would have a significant adverse impact upon the tranquillity of the National Landscape, one of its special qualities, and this would conflict with Policy CE5 of the CNL Management Plan. It would also not seek to further the purposes of CNL designation. Therefore, at this stage our position in terms of PMIE 4 is that construction traffic should be routed outside of the CNL to avoid significant adverse impacts upon its tranquillity and landscape and scenic beauty*' (emphasis added).
- 8.7.44 Whether or not a change of route is feasible is a question that may need to be answered during the course of the Examination, although the environmental / other effects, and implications, would have to be fully assessed.
- 8.7.45 Also, although the proposed cable route does not run through the CNL, the northern half runs close to the CNL's eastern boundary. Between a point just north of Grittleton and the A420 south of Yatton Keynell, which lies c. 4km north west of Chippenham, the route runs close to the boundary, in parts, **adjacent to / within 50m**, for a distance of c. **6km**.
- 8.7.46 As can be seen from the maps and plans, this section of the cable route is crossed by many lanes and PRowS, all of which are, or are likely to be used by people travelling to / from the CNL – probably more so than the section of the route north of Grittleton due to the proximity to, and easy access to / from, Chippenham by car, bicycle, and on foot. Note that the part of the CNL west of Yatton Keynell is especially popular with visitors due to several key natural, cultural, and recreational features / attractions, which include 'classic', high-quality Cotswold landscapes, with distinctive limestone topography; Castle Combe (according to some publications, 'the prettiest village in England'), and nearby motor-racing circuit; several Sites of Special Scientific Interest (SSSIs); ancient woodland; several Scheduled Monuments and numerous Listed Buildings;

extensive adjoining Conservation Areas (Castle Combe, and Long Dean - Ford – Slaughterford); Open Access land; and a good network of recreational routes, including the Macmillan Way.

- 8.7.47 It is inevitable that during the cable route works, many of the **High** sensitivity receptors using these routes would experience significant adverse effects.
- 8.7.48 In summary, in my opinion, due to the significant adverse effects on landscape character, especially tranquillity, and on visual and other amenity that would / are likely to arise, the Scheme does not comply with s. 85 of the Countryside and Rights of Way Act 2000 duty, which is to **'further the purpose of conserving and enhancing the natural beauty'** of the CNL.

#### **Summary of Effects on Landscape Character**

- 8.7.49 Overall, the landscapes which would be occupied by the Scheme, and changed by it, are highly valuable, highly susceptible to the form of change proposed here, and thus of **High** sensitivity.
- 8.7.50 In the profile for host LCA 8, at para. 4.156, the North Wiltshire assessment states, *'The whole area has an essentially **tranquil and pastoral character** within which **only small-scale, sensitively designed development, appropriately associated with existing built form**, could be successfully accommodated without adverse landscape impacts'* (emphasis added).
- 8.7.51 Evidently, the large-scale industrial project proposed here would be entirely at odds with this prevailing *tranquil and pastoral* character.
- 8.7.52 It is clear that these landscapes do **not** have the ability to *'accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies'*.
- 8.7.53 Effects on overall landscape character would be **significant adverse**; many could not be mitigated, and so would occur throughout the Scheme's lifetime.
- 8.7.54 Very importantly, in my opinion, the Scheme does not comply with s. 85 of the Countryside and Rights of Way Act 2000 duty, which is to **'further the purpose of conserving and enhancing the natural beauty'** of the CNL.

## 9. Amenity Effects

- 9.1 Effects on views and visual amenity during construction, operation, and decommissioning are set out in Section 10 below. However, there are other forms of amenity, such as residential, social, and recreational, which require consideration in the planning process and assessments of landscape, visual, and other effects. Effects on amenity is an important matter in this case, where all forms are likely to be adversely affected to varying degrees during all stages of the Scheme. However, the Applicant's LVIA does not specifically consider effects on recreational / social amenity.
- 9.2 My own assessment concluded that the highest sensitivity amenity receptors – ie those for whom the landscape's social / recreational resources and functions are especially important – would experience **significant adverse** effects during all phases of the Scheme. Evidently the most severe disruption to all forms of amenity would be during construction and decommissioning, and to a lesser extent, during interim works. However, during operation it is highly likely that many people would be deterred from travelling through / visiting the area for recreational purposes in particular due to the intensive and extensive industrialisation of the landscape that would occur.
- 9.3 My opinion about the development resulting in **significant** adverse effects on recreational amenity is partly based on the LVIA's conclusion, with which I **agree**, that there would be **significant** adverse effects on landscape character and visual amenity both within the Order Limits, and in the landscapes at least 1km beyond the Limits.
- 9.4 A dictionary definition of 'amenity' generally, which is helpful in the context of planning / assessment, is *'The quality or character of an area and elements that contribute to the overall enjoyment of an area'*.
- 9.5 Visual amenity is defined in GLVIA3 as *'the overall pleasantness of the views [people] enjoy of their surroundings'*. Incidentally, although the phrase that no one has 'a right to a view' is commonly used (it is a principle in English law that was first recorded in 1610), **planning policy can and does protect certain views**. Also, importantly, a component of residential amenity is residential visual amenity – see below, and Section 10.
- 9.6 Social / recreational amenity relates not only to 'enjoyment' in terms of recreation; it also relates to other highly valued aspects of the amenity resource; for example, people use landscapes for making necessary journeys; meeting friends and family; and peace and quiet / reflection / solace. These and other aspects of landscape and visual amenity make important contributions to the quality of people's lives, and are integral to maintaining and improving mental and physical health and wellbeing – explained further below.
- 9.7 Residential amenity is not defined in law, but can be defined as *'Elements that are particularly relevant to the living conditions of a dwelling'*.
- 9.8 *'Residential amenity has a significant and valuable impact on the way in which people use their homes. The health and well-being of residents is often directly related to the level of residential amenity occupants can enjoy. It is a duty of the planning system to support sustainable development. Sustainable development incorporates a social role which seeks to secure well-designed, strong, vibrant and healthy communities'*<sup>24</sup>.
- 9.9 These principles are echoed in policy, including Wiltshire Council's planning framework.
- 9.10 Wiltshire Council's Core Strategy Policy 57: *Ensuring High Quality Design and Place Shaping* requires all new development to maintain a high standard of design that protects the **amenity** of nearby residents.

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<sup>24</sup> For an example, see Technical Advice Note: Assessing Residential Amenity June 2016 South Gloucestershire Council

- 9.11 Wiltshire's *Design Guide* (Supplementary Planning Document (SPD)), adopted March 2024) expands on Core Policy 57. Section 3 identifies **health and wellbeing** as one of the 'three golden threads' which '*underpin this design guidance and support the delivery of the Council's strategic aims*'. It states, '*The value a high quality built and natural environment has to our health and wellbeing and **the significance of achieving this in development** has been increasingly brought into the forefront at a national and local level*' (emphasis added).
- 9.12 Importantly, according to the Landscape Institute's Residential Visual Amenity Assessment (RVAA) TGN, '*There comes a point when, **by virtue of the proximity, size and scale of a given development, a residential property would be rendered so unattractive a place to live that planning permission should be refused**. The test of what would be unacceptably unattractive should be an objective test*'<sup>25</sup>.
- 9.13 Visual amenity is a component of residential amenity, usually called 'residential visual amenity'. This means '*the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage*'<sup>26</sup>. RVAAs are considered to be 'objective tests', often carried out alongside LVAs / LVAs, and one has been carried out for the proposed development (see LVIA Section 8.7, and Section 10 of this report).
- 9.14 Glint and glare effects (see Section 11) do not appear to have been considered in the LVIA / RVAA, but of relevance here is para. 6.1 of the informal glint and glare guidance produced and used by the Applicant's glint and glare consultants (Pager Power Glint and Glare Guidance, Fourth Edition, September 2022), which states, '*Local residents are a key stakeholder within the local environment when proposing a solar PV development. This is because residents will be living in close proximity to the solar PV development whilst also potentially having views of the solar panels for its lifetime. Where a view of the solar panel exists, a solar reflection may be possible which may **impact upon residential amenity***' (emphasis added).
- 9.15 Of course, in RVAAs / LVAs, the visual assessment is technically restricted to effects on views, and as explained above, many character assessments only deal with effects on the **landscape's** features and qualities. Thus, effects on human beings, in public places and in their homes / gardens / grounds, are almost always overlooked. The effects arise from loss of privacy, loss of daylight, overlooking, overshadowing, lighting, late-night / early-morning activities, movement, disturbance, disruption, noise, vibration, odours, dust, flooding, pollution, and a general awareness of what is going on.
- 9.16 However, as GLVIA3 explains, LVAs should include an assessment of effects on the **experiential** qualities of the landscape, and their perceptual and aesthetic aspects / qualities. In other words, how the non-visual aspects of landscapes are perceived, and experienced.
- 9.17 As mentioned previously, LVAs rarely consider that some human receptors may be blind / partially-sighted. Also, importantly, GLVIA3 Box 5.1 explains that '**scenic** quality' '*is a term used to describe landscapes that appeal primarily to the senses (primarily, but **not wholly the visual senses**)*' (emphasis added).
- 9.18 NPS EN-1 para. 5.10.22 states that '*The assessment should also address the landscape and visual effects of noise and light pollution, and other emissions... from construction and operational activities on residential amenity and on sensitive locations, receptors and views, how these will be minimised*'. The LVIA does not provide this analysis.
- 9.19 Importantly, tranquillity is one of the CNL's Special Qualities, but high levels can be experienced within many parts of the study area. During construction, piling works generate significant

<sup>25</sup> Burnthouse Farm Windfarm, SoS Decision (APP/D0515/A/10/2123739) 6<sup>th</sup> July 2011

<sup>26</sup> Landscape Institute Residential Visual Amenity Assessment (RVAA) TGN 2/19 15 March 2019

amounts of noise, which is extremely jarring and uncomfortable, and is audible over long distances.

- 9.20 During operation, apart from during maintenance / interim works, solar developments are relatively quiet at longer distances; however, at closer quarters, the loud buzzing noise emanating from inverters (in particular) and substations is clearly audible, and can be very disturbing (to humans and wildlife).
- 9.21 SLD's RR para. 2.8.2 states, '*The development, in its current form, would change the context of the existing soundscape from a very (at times **extremely**) quiet rural environment to one containing constant sounds of a more **industrial** nature*' (emphasis added)
- 9.22 Evidently, the study area's landscapes make a very important contribution to people's mental and physical health and well-being, and to their quality of life, which the proposed development would adversely affect to varying but potentially significant degrees, during construction, operation, and decommissioning.
- 9.23 Effects on the health, well-being and quality of life of residents in their homes / gardens is an important consideration in planning and assessment, but so is that of residents and other people who use the landscapes beyond their homes as a resource for recreational and social amenity. Health, well-being and quality of life are integral to 'landscape', as well as to assessments of landscape and visual effects.
- 9.24 GLVIA3 Figure 1 shows examples of LVIA 'discussion areas', which under the heading 'human beings', includes **social impacts**. Furthermore, the importance of the above issues is made abundantly clear in the LI's policy on public health<sup>27</sup>, and associated position statement *Public Health and Landscape: creating healthy places* (the full position statement can be viewed on the Landscape Institute's website at the link to the LI's policy on public health in the footnote below).
- 9.25 The policy states, '**We want public health professionals, planners and landscape architects to promote and act upon the idea that high quality landscape increases wellbeing**'.
- 9.26 Both the policy and the position statement are derived from the European Landscape Convention (ELC) (as are many national and local landscape-related policies, including those relating to 'valued landscapes') which states (with emphasis added):
- 'Signatories acknowledge that **the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas** and that **the landscape is a key element of individual and social well-being.***
- 'The landscape also bears within it a system of **social values**, which sometimes have to be highlighted through awareness-raising activities. **The landscape's social values are tied to its importance for quality of life, health, and to its contribution to the creation of local cultures. Landscape identification, characterisation and assessment underlie landscape quality objectives. This is why such assessment should be done with the interested parties and population concerned, and not just with specialists in landscape appraisal and operations.***
- 9.27 In my opinion, the above is a **very important consideration** when deciding whether the public benefits of the Scheme outweigh the public harms.
- 9.28 As explained previously, my assessments were informed by material provided by and conversations with people from the local communities. They assisted with the desktop and on-the-ground landscape and visual baseline studies, and identified features and factors that contribute to landscape, and visual / other amenity value at national, local, neighbourhood, and site levels. They helped with research on the area's existing recreational, social, and cultural features / qualities, and

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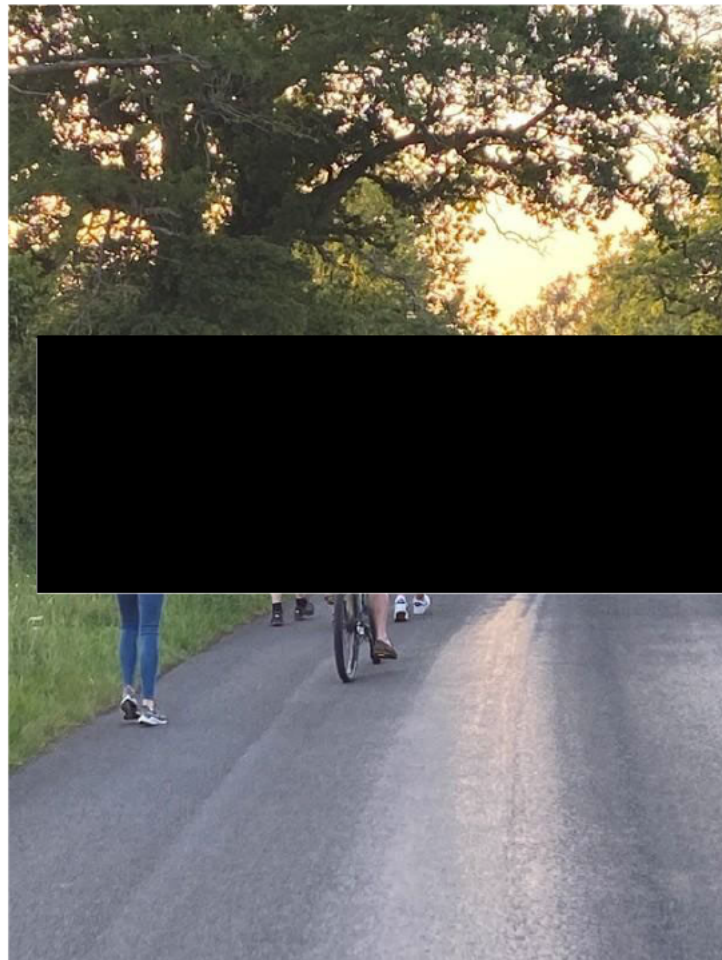
<sup>27</sup> <https://www.landscapeinstitute.org/policy/health/>

analysis of how the resources are used, by whom, which routes they take, and which modes of transport they use. I suggested that SLD might consider informal community consultation in the form of surveys, to establish levels of use, and perceptions of 'value' (with justification) along recreational routes: other groups I have worked with have successfully organised and conducted such surveys, which have been an important part of my evidence base.

- 9.29 In March 2026, SLD did develop a series of questions for an online survey (see SLD Appendix Y). They invited residents to answer the questions to help the group, their experts, and others *'better understand how local people use the Public Rights of Way (PRoWs) such as footpaths, bridleways, and lanes around the proposed site and cable routes. This information helps demonstrate the real importance of these routes to residents and visitors.'*
- 9.30 Respondents were asked:
- *Which Public Rights of Way (footpaths, bridleways, lanes) you use*
  - *How you use them – walking, dog walking, running, cycling, horse riding etc*
  - *How often you use them*
  - *How you get there – walk from home, drive and park nearby, cycle etc*
  - *Why they matter to you.*
- 9.31 Respondents were also asked to send photographs if wished, and many sent maps of routes. Some of the residents' material may be submitted directly to the ExA.
- 9.32 The material provides details and illustrations of the sites and their contextual landscapes, and the features, resources and qualities which are most highly valued, and should be referred to as required. In summary, the routes were used for activities such as commuting between villages; visiting; walking; dog-walking; jogging / running; horse-riding; cycling; and accessing nature / wildlife. Level of use ranged from 'daily' to 'occasionally'. Reasons for why people value the resources were wide-ranging, but included *'beauty and peace of countryside'; 'nature, unspoilt, quiet and peaceful, farmland, farm animals, beauty, mental health'; 'exercise'; and 'safety'*.
- 9.33 In the conversations I had with residents, and according to the notes they sent me, the adverse effects on their social / recreational amenity and health and wellbeing are of great concern.
- 9.34 It is also important to note that the Applicant does not propose to permanently close or divert any PRoWs: temporary closures would be required during construction, including along the cable route, but where possible, existing routes would be retained, in accordance with the NPS. Also, the Application includes the creation of new permissive paths to increase public access throughout the project's life.
- 9.35 NPS EN-1 para. 5.11.30 recognises that *'Public Rights of way, National Trails, and other rights of access to land are **important recreational facilities** for example for walkers, cyclists and horse riders'* (emphasis added). Applicants should *'take appropriate mitigation measures to address adverse effects'* on people using these resources; *'consider what opportunities there may be to improve or create new access'*; and if 'revising' existing rights of way, consider *'the use, character, attractiveness, and convenience of the right of way'*.
- 9.36 Regarding creating new access, no one I spoke to was enthusiastic about the proposed permissive paths, given they would be travelling through a heavily industrialised area as opposed to a tranquil rural landscape.
- 9.37 Of course, as with other factors of relevance to 'landscape' and how it is experienced, and judgements about how character and experience could be affected, people ascribe different levels of value to recreational resources for a wide variety of reasons. Thus, again, here, more granular study and fieldwork is needed to establish which resources, including PRoWs / other routes, are most important to whom, and why.

- 9.38 According to one resident, *"the local rights of way network is the most important recreational amenity for all the local villages, and also for people who come from further afield"*. This may be considered a subjective observation, but according to the Wiltshire and Swindon Countryside Access Forum (WSCAF)'s website, *'Wiltshire's 736 Kilometres of Byways Open to All Traffic (BOAT) represent 22% of all the BOATs in England. These, together with open green spaces (access land), provide an invaluable network for public recreation, travel and health, a refuge for wildlife, and attractions for visitors which help to boost the local economy'*.
- 9.39 The Scheme lies in the middle of a highly rural area which is surrounded by a triangle of major roads (A46 and A433 to the west, M4 to the south), the northernmost tip of which is pointing at, and ends just south west of, Cirencester. The Fosse Way bisects the triangle, passing through the centre of Cirencester (which, due to its strategic location at the intersection of trade routes, became the second-largest city in Roman Britain after London).
- 9.40 The only 'large' towns within the triangle (in fact, relatively small) are on the edges of the triangle – Tetbury to the west, and Malmesbury to the east. Because the roads within the triangle are better for meandering as opposed to, in the wider region, getting quickly from A – B, the area is relatively quiet and free from disturbance. The M4 and the railway run through the southern part of the triangle, but even in this area, the extent of their effects on tranquillity is limited due mainly to much of their corridors being in cutting, and often wooded.
- 9.41 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. Also, many people travel through the landscapes that would be occupied by / affected by the Scheme on their way to and from the CNL.
- 9.42 The landscapes and resources are highly valued by residents, who regularly use the lightly-trafficked lanes, BOATs and PRoWs for walking, running, cycling, and horse-riding. They are also highly valued by communities within the wider area, and by visitors, many of whom come from around the world specifically to enjoy the Cotswolds landscapes' positive aesthetic and perceptual qualities, and resources.
- 9.43 Many popular rights of way would be adversely affected including long-distance trails, and **the landscapes occupied by the sites form an important and integral part of the recreational experience.**

*Photographs along lanes in vicinity of Scheme*





- 9.44 Probably the most profound negative changes to people's experiences would occur along the PRowS which cross the sites. Here, levels of adverse visual and other amenity effects would be very high.
- 9.45 This is mainly due to proximity to the large industrialising elements which would replace the rural landscape. In many places, the panels and other structures would be highly visible, and would also act as screens, resulting in loss of characteristic openness and fine / pleasant open views; elsewhere, the tall hedges proposed to screen the development would also result in loss of openness and view.
- 9.46 As explained in previous sections, **high levels of tranquillity** are experienced within many parts of the study area, this being highly important aspect of residents' and visitors' amenity. Also note that the sense of feeling 'calm' and 'safe' is integral to tranquillity and amenity as a whole. As explained in Section 8.6, highways experts have concluded that along the roads and lanes used for recreational purposes, **highway safety is likely to be severely compromised by construction traffic.**
- 9.47 The descriptions and illustrations in Section 8.6 of the landscapes, resources and receptors along the construction route, and the effects likely to arise, are relevant to this section, and should be referred to for more information if required, along with residents' / consultees responses.
- 9.48 Note that as explained in Section 8.6, many recreational receptors would also be adversely affected along routes crossing the proposed cable corridor, which would run from the southern side of the main site to the existing substation north of Melksham – a distance of c. 16.5km as the crow flies, and c. 22km along the ground. Although the proposed cable route does not run

through the CNL, the northern half runs close to the CNL's eastern boundary. Between a point just north of Grittleton and the A420 south of Yatton Keynell, which lies c. 4km north west of Chippenham, the route is close to the boundary – in parts, adjacent to / within 50m – for a distance of c. 6km. In particular, many people travel to Castle Combe and surrounding landscapes: being within the CNL, and due to the high quality of the natural, cultural, and recreational resources available, this area is especially popular with visitors.

- 9.49 As mentioned previously, it is highly likely that many people would be deterred from visiting the area for recreational purposes, in particular due to the intensive and extensive industrialisation of the landscape, which would result in adverse effects on local businesses – see below.
- 9.50 In terms of visual functions and resources, to a certain degree, at certain places, and at certain points during the Scheme's lifetime, it is likely all the sites would be visible from adjacent / nearby PRowS and lanes used for informal recreation, but not all are crossed by PRowS.
- 9.51 The high levels of adverse visual and other effects on **High** sensitivity receptors travelling through the sites would be the result of factors set out in previous sections, mainly the large-scale industrialisation of these rural, tranquil landscapes. See also visual effects in Section 10.
- 9.52 The study area's landscapes and associated resources also contribute greatly to the local economy. As mentioned above, many establishments cater specifically for people who come specifically to enjoy the landscapes' special qualities and resources.
- 9.53 Residents' responses to the Application provide detailed information about the above matters, setting out concerns about how the proposed development would adversely affect their amenity (social, recreational, visual, residential), and their businesses / trades.
- 9.54 The Applicant does not identify significant adverse effects on amenity, but in my opinion, more granular study is required to inform judgements about effects. For example, who is travelling where, why, and how? The Cotswolds attract visitors from around the world, and within the study area, there are numerous nationally / internationally-important assets, attractions, events, and facilities; some are mentioned above, for example historic buildings, parks and gardens; the National Arboretum at Westonbirt; Castle Combe motor-racing circuit; and Badminton Horse Trials.
- 9.55 As explained in Section 8.6, the regionally- if not nationally-important equine industry in the study area could be adversely affected in a number of ways. It is important to note that in themselves, the different types of effects may not be significant, but when **combined**, they may well be.
- 9.56 Also, it is known (papers on the subject have been published<sup>28</sup>) that the presence of industrialising development in good quality rural landscapes can deter / discourage people from visiting, and thus adversely affect businesses which benefit from the landscapes' quality / qualities. Here, many people travel along roads and PRowS where in future, views of open, high quality rural landscapes would either be replaced by views of panels, substations, BESS, and other industrialising elements / infrastructure, or the view may be screened and thus lost.
- 9.57 In their RR [**RR-4130**], one person wrote:

*'As a personal investor in the Vine Tree Pub in Norton, a central location within the massive scheme, I strongly object to this project. It will significantly impact the pub's revenue as tourists are key to the business. Visitors will be deterred and not interested in coming to the area due to the ruined walks and scenery caused by towering solar panels - it will no longer be an idyllic edge of the Cotswolds location but an industrial solar farm. The beautiful scenery on the edge of the ANOB [sic] will be permanently damaged, rendering the area unattractive to tourists, which is a crucial part of*

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<sup>28</sup> See for example *Research briefing: Controversies over intensive poultry unit developments* - Dr Alison Caffyn - Briefing 3. May 2021 - Tourism impacts (Cardiff University); and Alison Caffyn (2022): *Contested rural landscapes: contemporary entanglements of tourism and farming*, Journal of Sustainable Tourism, DOI: 10.1080/09669582.2022.2134399

*the pub's customer base. I wouldn't have invested in the pub at the time if I had known about this this [sic] project. It deeply concerns and worries me about the future, as it could have such a negative effect on the business and the numerous local staff employed there. It's a key establishment in the village, and it's possible that it could even close as a result.'*

- 9.58 In summary, in my opinion, the proposed development would adversely affect the above receptors and resources in some way and to different degrees, but some significantly, due to the disruption and very high levels of adverse visual and other effects that would arise during years of construction, interim works, and decommissioning, and / or the long-term adverse visual and other operational effects (also cumulative effects).

## 10. Visual Effects

### 10.1 Introduction

- 10.1.1 Many of the matters dealt with in previous sections are relevant to effects on views. For example, levels of landscape value and susceptibility to change of the type proposed; the changes to aspects of character that would occur, which many people would see and / or experience; effects on people's recreational / social amenity; and technical issues relating to the Applicant's LVIA's method and process. These sections should be referred to for more information about the subjects, but where relevant, they are noted below, along with technical matters which are specific to visual effects.
- 10.1.2 Broadly, the approach to assessing visual effects is the same as that for character, in that levels of value + susceptibility = sensitivity, and levels of sensitivity + magnitude = overall effect, except that character assessment considers receptors' susceptibility to the specific type of change that is proposed, whereas visual assessment only considers receptor susceptibility – see below.
- 10.1.3 The first part of this section summarises relevant technical matters, especially those which, in my opinion, have led to the Applicant's LVIA having underestimated of levels of adverse visual effects. This is followed by more detailed explanations of effects on a) public and b) private views.
- 10.1.4 In summary, the LVIA concludes that at many public and private viewpoints, receptors would experience **significant adverse effects on views** during construction, operation, and decommissioning which could not be mitigated. I **agree** with this judgement, but in my opinion, the LVIA has underestimated the **levels** of visual effects, especially their extent and duration.
- 10.1.5 The LVIA concludes that after 15 years of operation, when it assumes that the proposed screen planting would have established and matured successfully and become fully effective (see previous comments on this matter), the majority of adverse public and private visual effects categorised as 'significant' would fall below the significance threshold. I do **not agree** with this conclusion.

### 10.2 Technical Matters

#### **Underestimations of Levels of Visual Effects: Summary**

- 10.2.1 Many of the technical issues relating to the Applicant's LVIA's method and process and which are relevant to the visual assessment are explained in previous sections, others are explained below. Of particular relevance is the LVIA's underestimation of levels of visual effects, the reasons for which, in summary, include the following:
- i) Problems with LVIA criteria and point scales.
  - ii) Levels of certain visual receptors' sensitivity set too low.
  - iii) Over-reliance on vegetation to screen views.
  - iv) Over-optimistic assumptions about future plant growth and 'maturation'.
  - v) Cause and nature of many effects not identified / factored in to assessments.
  - vi) Not assessing the reasonable worst-case visual scenario at winter Year 15.
  - vii) Not considering the adverse effects of proposed mitigating measures.
  - viii) Not factoring in that screening intended to reduce levels of adverse visual effects results in the total loss of a view, resulting in high levels of adverse visual effects.

- 10.2.2 Regarding over-reliance on vegetation to screen views, it is important to note that, as explained previously, these days, it is not considered sufficiently precautionary (nor best-practice in LVIA) to rely on vegetation to screen views even in the shorter term, because realistically, it is so unlikely that all the existing / proposed screening vegetation would remain in place for the lifetime of an 'impermanent' development (ie where in future, decommissioning is proposed), even factoring in regular replacements of plants which fail within the sites / on their boundaries.
- 10.2.3 The LVIA relies heavily on, and emphasises the importance of, existing and proposed vegetation to reduce high levels of adverse landscape and visual effects, including inter- and intra-project cumulative landscape / visual effects, and sequential visual effects, by screening / filtering views of the Scheme.
- 10.2.4 In my opinion, the requirement for such extensive and substantial visual screening is acknowledgement that the large-scale industrial development is inappropriate in this location.
- 10.2.5 In addition, I **agree** that not all views could be screened by vegetation, and that these effects would remain significant during all stages of the Scheme – see for example the *Applicant's Response to Relevant Representations (Part 1)* March 2026 [PDA-009], SLD-022.
- 10.2.6 Furthermore, the adverse effects of the Scheme are amplified by the Scheme Design Parameters providing for the general use of tracker solar panels which would be **up to 4.5m above ground level**. As mentioned previously, this is equivalent to the height as a double-decker bus, and the average height of a bungalow. To get an idea of scale, it would be very helpful if the Applicant could provide images of the proposed panels in situ at their maximum height with a person of average height in the image. **### request for information**
- 10.2.7 In my experience, and according to experts, while not unique, the proposed use of such tall panels in the UK is unusual.
- 10.2.8 As far as I have been able to ascertain, currently, no operational solar schemes utilise 4.5m high panels, probably because the latest generation of single-axis trackers and bifacial modules have only recently become industry standard (previously, 2.5 – 3m was usual). However, in South Yorkshire, in 2023, planning permission was granted for Common Farm Solar Energy Park [RB2022/1203] (c. 49.9MW) which proposes 4.5m high panels, and which is now under construction.
- 10.2.9 Also as far as I have been able to ascertain, so far, the only **consented** solar NSIPs with panels up to 4.5m are West Burton [EN010132] and Cottam [EN010133]. Apart from Green Hill [EN010170] (Examination recently concluded), none of the solar projects I have been involved with, including NSIPs, have proposed panels taller than 3.5m.
- 10.2.10 The use of shorter (c. 3.5m high) non-tracking panels could potentially result in a reduction of levels of certain adverse effects on landscape character and visual amenity, and the extent and levels of adverse glint and glare effects. However, in my opinion, it would make little or no difference to judgements about overall landscape and visual effects.
- 10.2.11 For example, shorter panels would not change levels of **direct** adverse effects on character, but might marginally reduce indirect levels by 'limiting' loss of openness, in that (presumably), hedges within the Applicant's control could be managed at 3.5m, not 4.5m, given that the reason for the taller hedges is due to the taller panels.
- 10.2.12 Visually (in terms of the visual aspects of character, and specific viewpoints / view routes), again, a reduction in height may mean that levels of some adverse effects from locations at close quarters are slightly reduced, in that one may be able to see landscapes / horizons over the tops of panels which taller panels would have screened; and / or, the panels may be more likely to be screened by hedges (but that depends on the elevation and angle of view, and screening may result in the total loss of view).

- 10.2.13 However, shorter panels are unlikely to make any difference to levels of adverse visual effects further from the sites, especially at more elevated locations, because where land is seen more in plan-form, the land coverage is visible (eg grass / panels), but the height of the coverage makes little difference – see photo below.

*Operational solar development in Worcestershire*



- 10.2.14 Indeed, I understand that for the Sunnica solar NSIP [EN010106], the height of panels has been limited to a maximum of 2.5m to reduce high levels of adverse visual and other effects (see for example the Design Principles which were secured in that DCO ([REP6-038])).

### **Study Area Boundary**

- 10.2.15 I **agree** with the LVIA's visual study area boundary, as it is unlikely that **significant** adverse visual effects arising from the Scheme (in isolation, as opposed to in combination with similar schemes – see Section 12) would be experienced at viewpoints further than 5km from the Order Limits, and that normally, levels of visual effects decrease with distance.
- 10.2.16 However, there are likely to be significant adverse visual effects along the construction route, including where it runs through the CNL and its setting.

### **Zone of Theoretical Visibility**

- 10.2.17 I **agree** with the use of a bare-earth scenario for the LVIA's Zone of Theoretical Visibility (ZTV) plan ([APP-097] LVIA Figure 8-8), as that is what GLVIA3 recommends: it shows how visible the development would be in future without the benefit of existing and / or proposed screening vegetation.

### Viewpoint Locations

- 10.2.18 The LVIA's public and private viewpoint (VP) locations are not intended to give an indication of the future scheme's extent of visibility – the bare-earth ZTV should be the starting point for that, subsequently factoring in the nature and likely degree of permanence of both existing and proposed screening vegetation.
- 10.2.19 As explained above, the public VP locations are representative of points along roads and PRowS from which the developed sites would / may be visible to varying degrees, but there are many other locations from which it would / may be seen, as shown on the ZTV plan.
- 10.2.20 SLD's Procedural Deadline A (PDA) Submission [**PDA-012**] shows some of the additional public and private VPs identified by residents and myself.
- 10.2.21 I found it easier to carry out the visual assessments with SLD's *Combined Baseline and Project Information Plan*, partly because it shows relevant baseline and project information, but mainly because the grey shaded areas on the plan (layer ref. *APP-097: Zone of Theoretical Visibility (png-70%)*) show where the development would be *screened* by topography, as opposed to the green shaded areas on the Applicant's ZTV plan, which show places from which development would *not* be screened by topography, but the shading makes it difficult to see what is underneath.
- 10.2.22 Some of the identified VPs are the subject of photomontages ([**APP-117**] ES Volume 2, Figure 8-14 *Baseline Photography and Photomontages*; locations are shown on [**APP-099**] Figure 8-10 *Viewpoints*), which give an indication of how the developed sites may appear at Years 1 and 15. My comments on the photomontages are set out below, but note that only **one** is from a VP along a PRow crossing one of the sites, and **no panels are proposed in the field which the PRow crosses**.

### Visual Receptor Sensitivity

- 10.2.23 As explained in Sections 3.4 and 5.2 above, the LVIA erroneously assumes that the susceptibility of visual receptors is dependent on the specific change being proposed, whereas it is *the occupation or activity of people experiencing the view at particular locations, and the extent to which their attention or interest may therefore be focused on the views* which determine visual receptor susceptibility – the nature of the change is irrelevant at this stage of LVIA process. Some people may live in / be travelling through the High value CNL, others may be within Low value landscapes, but that does not affect their level of susceptibility in terms of the personal enjoyment of (or need for) the experience.
- 10.2.24 It is not clear whether the LVIA assessed effects on the above basis, and if so, what the implications are for judgements about levels of visual effects.
- 10.2.25 Also, I do **not agree** with the LVIA's visual susceptibility criteria in Appendix 8-1 Table 8.1.1.10 *Visual Receptor Susceptibility to Change* [**APP-187**] because they include factors which relate to landscape / visual **value**, which are **not** relevant to susceptibility.
- 10.2.26 In my opinion, the above and other errors have led to some visual receptors' sensitivity levels having been underestimated, and thus, levels of visual effects have been underestimated.
- 10.2.27 For example, in the visual assessment tables [**APP-191**], numerous visual receptors using transport routes are ascribed '**Medium**' visual value. However, as explained in Section 5.1, the LVIA concludes that the landscapes through which the routes pass, within the CNL **and** within its setting, are of **High** value (GLVIA3 para. 6.37 explains that levels of value attached to views are relative to levels of landscape value). Therefore, the LVIA should report the visual value as **High**.

10.2.28 Thus, where the LVIA ascribes **High** levels of visual susceptibility to receptors (which appears to be the case throughout), the level of visual sensitivity should be **High, not High – Medium**.

10.2.29 It must also be borne in mind that **people on horseback** have a higher eye-level than drivers, cyclists, and pedestrians, and can often see over hedges / other elements which screen views for those with lower eye-levels: the LVIA did not factor this in.

*Photographs taken by equestrians riding along lanes in the vicinity of the Scheme*



### **Adverse Visual Effects of Mitigating Measures**

- 10.2.30 As explained in Section 7, the LVIA does not factor in that in itself, the new planting would give rise to adverse landscape and visual effects.
- 10.2.31 For example, the LVIA acknowledges that planting would not screen (or filter) all views of the development, especially those from more elevated locations where even very tall trees would not screen, but to help achieve screening from lower-lying viewpoints, especially on and in proximity to the developed areas, the LVIA states that where within the Applicant's (or other associated body's) control, existing and new hedges would be maintained at a height of c. 4.5m.
- 10.2.32 The problem is that characteristically, hedge heights vary throughout the study area, reflecting a) historic and / or current use / function (eg doubling as a windbreak for stock / crops in exposed areas), and b) level of regular maintenance / ongoing management. In many parts, including within the Order Limits, **tall hedges are uncharacteristic and would be visually inappropriate**, resulting in loss of characteristic openness.
- 10.2.33 In addition, whilst from some places the proposed planting might successfully screen views of the development and thus **reduce** levels of adverse visual effects, the LVIA does not factor in that in many cases, the tall hedges (and proposed woodland) would result in the **total loss** of a view, which results in a **high** level of adverse visual effect.
- 10.2.34 The above is confirmed in [APP-187] Table 8.1.1.13, where the criteria for a High (Adverse) magnitude of change include '*Occupies an extensive proportion of the view and may even **obstruct a significant portion** of the view*' (emphasis added).
- 10.2.35 This is particularly the case within the CNL and its setting, as openness and open views from and to the National Landscape, especially long-distance views, are amongst the CNL's Special Qualities. For this reason, as explained in LVIA Table 8.12, the Applicant has agreed with the CNLB that '*All hedgerows bordering the CNL within Site C (including hedgerow SH3) are to be maintained to a height of c 1.5m (or as existing if greater) to maintain open views of the landscape within the setting of the CNL*'.
- 10.2.36 However, 'wide views over the area' are also an important characteristic of the sites' host LCA 8 (see photos overleaf), and **many of these views would be lost as a result of the proposed visual mitigation**.

*Characteristically open views in vicinity of Order Limits*





### Visual Reasonable Worst-Case Scenario

10.2.37 GLVIA3 para. 4.3 states that LVIA's should consider '*a reasonable scenario of maximum effects, sometimes referred to as the 'worst case' situation*', which is in line with the EIA approach, and NPS EN-3. However, the LVIA does not **consistently** report the reasonable worst-case scenario.

10.2.38 As mentioned in Section 8.5, LVIA para. 8.4.2 explains that during construction and Years 1 – 15, '*Assessment work has been undertaken in both summer and winter in order to assess a **worst-case scenario***' (emphasis added).

- 10.2.39 LVIA para. 8.8.273 explains that photographs were taken *'during both summer and winter months to ensure a **worst-case** scenario is assessed and illustrated'* (emphasis added).
- 10.2.40 However, for reasons which are not explained, between Years 15 and 60, visual effects were only *'assessed in **summer** with vegetation in leaf offering maximum screening potential'* (emphasis added).
- 10.2.41 LVIA para. 8.8.281 explains that *'For viewpoints from where Photomontages have been produced, visualisations have been produced at **Year 1 Winter** (to demonstrate the **worst-case** scenario) and at **Year 15 Summer** (to demonstrate the screening effects of the Embedded Mitigation)'* (emphasis added, see below).
- 10.2.42 I agree it is reasonable to illustrate the proposed screen planting when the LVIA assumes it would have become effective; however, this represents the 'best-case' scenario, **not** the reasonable worst-case, as levels of adverse visual effects would be **lower** during the summer months (and note that in this region, deciduous trees are leafless for up to six months of the year).
- 10.2.43 At para. 6.28, GLVIA advises that *'Consideration should be given to the seasonal differences in effects arising from the varying degree of screening and/or filtering of views by vegetation that will apply in summer and winter. Assessments may need to be provided for both the winter season, with least leaf cover and therefore minimum screening, and for fuller screening in summer conditions. Discussion with the competent authority will help to determine whether the emphasis should be on the **maximum visibility scenario of the winter condition** of vegetation, **or** whether **both** summer and winter conditions should be used...'* (emphasis added).
- 10.2.44 In my opinion, consideration should be given to the LVIA being revised with effects illustrated and reported at **winter** Year 15. **### request for information**

### **Photomontages / Visualisations**

- 10.2.45 It is helpful that the LVIA has combined the baseline photography with the wireframe images and photomontages [**APP-117**], and the way the document is arranged assists with navigation.
- 10.2.46 However, in my opinion, the photomontages themselves are unsatisfactory.
- 10.2.47 Firstly, as mentioned previously, they do not show the reasonable worst-case scenario of winter Year 15.
- 10.2.48 Secondly, also mentioned previously, only **one** of the photomontages illustrates the changes in views that would be experienced by people travelling along PRoWs crossing sites A – E, and **no panels or infrastructure are proposed** in the field through which the footpath runs – see effects on public views below.
- 10.2.49 Thirdly, the LVIA's photomontages do not show what the development would look like in reality. For example, a) they show mitigation / enhancement measures having established successfully and having become effective by Year 15, whereas in my opinion, that outcome for woodland in particular is unlikely; b) they show 'benign' light conditions; and c) they do not show the colour and texture of the panels as they would appear under 'normal' weather / light conditions – the image is too flat and 'dull', and does not appear to account for the effects of glint and glare.
- 10.2.50 The first image overleaf is a computer-generated image (CGI) of a proposed solar development from the air, showing how light on the panels would behave under the weather and light conditions specific to the original photo. The photos below that are of operational solar sites, showing how perceived colour varies according to light conditions especially, but also contextual backdrop, resulting in differing and constantly changing levels of contrast / assimilation.

*CGI of proposed solar development in Worcestershire, aerial view*



*Photos of operational solar sites*









## 10.3 Effects on Public Views

10.3.1 The LVIA's conclusions about visual effects on receptors at public VPs are summarised in [APP-192] LVIA Appendix 8-3-3 Summary of Visual Effects.

10.3.2 Broadly, they are as follows:

- i) During **construction and Years 1 – 15 of operation** (although in theory at least, levels of adverse effects should reduce as the years pass), the LVIA predicts that people travelling along **twenty-seven** of the PRoWs selected for assessment, and **eleven** of the transport routes (roads and lanes), would experience **significant adverse** visual effects.
- ii) The majority of the significant effects would be **Major – Moderate Adverse**, the rest, **Moderate Adverse**.
- iii) Between **Years 15 and 60 of operation**, the number of PRoWs along which people would experience **significant** adverse visual effects would drop to **ten**, the majority remaining **Major – Moderate Adverse**.
- iv) However, **none** of the adverse visual effects along transport routes would remain significant.

10.3.3 Whilst I **agree** that **numerous** visual receptors would experience significant adverse effects during construction and Years 1 – 15 of operation, in my opinion, levels of visual effects at all stages of the development have been **underestimated**.

10.3.4 Note that many of the affected visual receptors are either a) **within the CNL** looking over the Scheme towards its setting, or b) **within the CNL's setting**, looking towards it – see below.

10.3.5 The reasons for the underestimations of levels of visual effects are explained in detail above / in previous sections, and where relevant, below.

### **Visual Effects: CNL**

10.3.6 At para. 8.10.139, the LVIA states, '*As set out above the Scheme has avoided harm to the CNL, maintained views to and from the CNL, protected the features of the landscape within the setting of the CNL, retained and enhanced the character of the landscape through the proposed embedded mitigation and provided positive enhancements to further the purpose of the CNL*'.

- 10.3.7 As explained in Section 8, in terms of character, I do **not agree** that the Scheme design has achieved the above. In particular, as explained in previous sections, I do **not agree** that the character of the landscape would be *'enhanced... through the proposed embedded mitigation and provided positive enhancements to further the purpose of the CNL'*.
- 10.3.8 In [APP-197] LVIA Appendix 8.6: *Assessment of Effects on the Cotswolds National Landscape and its [sic] Special Qualities* September 2025 Revision 1, para. 2.4.16 concludes that *'there are no significant effects on Public Receptors associated with the Scheme and the CNL. This is predominantly as a result of the measures incorporated into the Scheme to avoid harm to the CNL'*.
- 10.3.9 I do **not agree** with this conclusion.
- 10.3.10 Firstly, the LVIA's conclusions above do not reflect those reported elsewhere in the LVIA, which predicts **significant** adverse residual effects on landscape character and certain views, including within the CNL / its setting – as mentioned previously, these are **High** sensitivity landscapes, and many visual receptors are of **High** sensitivity (it must also be borne in mind that levels of residual landscape and visual effects tend to decrease gradually with distance, so the highest levels of visual effects would be within / adjacent to the Scheme).
- 10.3.11 Regarding the adverse visual effects of the proposed mitigating measures, from some viewpoints, by Year 15 of operation the proposed hedges could potentially have established successfully, and to the point where they would fully screen views of the development until decommissioning at Year 60, and thus **reduce** high levels of adverse visual effects. However, the LVIA does not factor in that in many cases, the 4.5m tall hedges (and eventually, new woodland) would result in the **total loss** of a fine / pleasant open view, which in itself results in a **high** level of adverse visual effect.
- 10.3.12 This is particularly the case within the CNL and its setting, as openness and open views from and to the CNL, especially long-distance views, are amongst the CNL's Special Qualities. For this reason, as explained in LVIA Table 8.12, the Applicant has agreed with the CNLB that *'All hedgerows bordering the CNL within Site C (including hedgerow SH3) are to be maintained to a height of c 1.5m (or as existing if greater) to maintain open views of the landscape within the setting of the CNL'*. However, *'wide views over the area'* are also an important characteristic of the sites' host LCA 8, and many of these views would be lost due to the development.
- 10.3.13 According to the LVIA's criteria, the magnitude of the effect arising from the total loss of a view would be **High Adverse**. Therefore, the effect on High sensitivity visual receptors looking from / to the CNL would be **Major Adverse (significant)** - the highest possible level in LVIA Table 8.1.1.14 [APP-187].

#### **Visual Effects: PRowS Crossing Sites Lime Down A - E**

- 10.3.14 My assessment concluded that there would be adverse implications for the visual and other experiences of people using the PRowS which cross sites Lime Down A - E, due to the **significant and detrimental changes** that would be caused by the proposed development, and the very high levels of adverse effects which would be experienced at close-quarters.
- 10.3.15 Potentially, the adverse effects would be experienced for extended periods of time: not only are some sections of the PRowS relatively long, but also, some people may be on routes which pass through / adjacent to more than one site, so sequential visual / other effects must be considered.
- 10.3.16 Currently, along these PRowS (which include BOATs, bridleways and footpaths), people are travelling through **High** sensitivity, High quality, open, unsettled rural landscapes, within the setting of the CNL, often going to / coming back from the CNL for informal recreational purposes / enjoyment; thus, they are **High** sensitivity receptors.

- 10.3.17 Along the way there are opportunities for a wide variety of positive visual and non-visual experiences, from panoramic vistas to intimate views along wooded stream corridors; characteristic Cotswold stone walls and buildings; numerous heritage assets; abundant wildlife; and away from the major road and rail corridors, very high levels of tranquillity, and dark skies at night.
- 10.3.18 The proposed change would result in the industrialisation of large parts of this highly rural context, 'sterilising' landscapes where seasonal changes would otherwise be seen and experienced.
- 10.3.19 Some of the PRowS crossing the sites follow field boundaries, others are through open fields. Where solar arrays and other infrastructure are proposed, security fencing (currently, 2.5m high deer-proof timber post and wire netting is specified) would be installed either on one or both sides of the PRow, creating a series of **long, inescapable corridors**.
- 10.3.20 In my experience, most solar applications have proposed very narrow PRow corridors, some less than 10m wide. In those cases, not only are the panels / infrastructure very close to the viewer, and thus dominant / overbearing (note that as mentioned above, usually, the panels are no more than 3.5m above ground level), but also, long fenced corridors pose safety risks to users. For example, along bridleways there is the potential for conflict between users which include walkers, runners, cyclists, equestrians, and various animals, with limited room to stand out of the way, and no means of escape except at either end.
- 10.3.21 In more recent applications, perhaps due to the above concerns having been raised, the proposed corridors seem to be becoming wider. Here, the Applicant proposes **30m** wide corridors along all PRowS crossing the sites (see for example LVIA Table 8-12 *Embedded Mitigation: Landscape Design Parameters*, in the row *New Planting and Recreational Users*).
- 10.3.22 In my opinion it seems likely that one of the main reasons for what may be considered a relatively generous width is due to the proposal to use panels up to 4.5m high. The extra height means that at closer quarters, the panels would be even more dominant / overbearing than shorter ones.
- 10.3.23 As noted in Section 7, the LVIA's approach to hedge planting involves restoring gappy hedges and, within the setting of the CNL at least, re-establishing historic hedgerows. Both are described as 'embedded' mitigation measures. It appears that the LVIA would not plant new hedges along arbitrary lines where no hedges existed before, because this would result in adverse effects by disrupting characteristic field patterns. This **includes** along the PRowS which cross the sites. If that is the case, I **agree** with the approach, although **clarification would be helpful. ### clarification**
- 10.3.24 In fact, in responses to solar applications, police Designing Out Crime Officers (DOCOs) do not recommend that hedges are planted along security fences due to the high levels of solar crime in the UK<sup>29</sup>, and the need for good visibility / transparency along fencelines, especially where CCTV / other security measures are in operation. Nor do they recommend deer-proof fencing, as it does not deter or prevent theft of panels / other materials, nor vandalism (DOCOs have reported people throwing stones at panels to see how many they can break). Instead, they prefer to see more robust security fencing such as LPS 1175 Level 3, up to 2.8m high (also, I know of at least one insurance company that may not cover large-scale commercial solar developments which rely on deer-proof fencing for security).
- 10.3.25 But whether or not hedges were planted along the outer edges of the security fences would make little difference to the high levels of adverse visual effects that would arise: either the arrays and other infrastructure would be visible, or the screening would result in the total loss of the view.

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<sup>29</sup> See for example *Theft From Solar Farms* (February 2023), by Crime Intelligence and Opal (the 'Police unit for the United Kingdom developing intelligence to disrupt organised networks involved in acquisitive crime in partnership with the public / private sector'; a company called DeterTech produced the document).

- 10.3.26 The sections of the PRoWs which cross the sites with solar arrays / other infrastructure on one or both sides are of varying lengths. For example, the section crossing the western part of Lime Down E is c. 150m, whereas the section crossing Lime Down D (just north of Bradfield Manor) is c. 1km, and across Lime Down A, the distance is c. 1.5km.
- 10.3.27 The majority of the PRoWs crossing the sites appear / are reported to be well used by residents, many by people in nearby towns such as Malmesbury and Chippenham, some by people from further afield who are travelling to / from the CNL, particularly those which run through Lime Down A, C and D. Some of the interconnecting PRoWs and lanes offer loop-routes of varying lengths, so there would be **sequential** views of the developed sites, and the adverse effects could be experienced for long periods of time on a single journey.
- 10.3.28 The PRoW through Lime Down A runs north west – south east. It is along a route that locally, connects Sherston (at the edge of the CNL and with good access to the landscapes beyond), to the Fosse Way / Farleaze via Pig Lane (part of an ancient route leading to Chippenham – see Section 8.6). The route has good connections to the footpath network and quiet lanes beyond.
- 10.3.29 The northern end of the PRoW is at the northernmost boundary of Lime Down A, where the CNL boundary runs along Foxley Road. This section is a public access route along a track (no panels / infrastructure are proposed in the northernmost field, adjacent to Foxley Road). The four small, hedgebound fields on the east side of the route are good examples of remnant traditional pasture, uncommon in an area where arable use predominates: note the **contrast** in character between existing small-scale pastoral and proposed large-scale industrial uses.
- 10.3.30 At the southern end of the public access route, the PRoW is a bridleway, leading to the Fosse Way via Lordswood Farm, which lies close to the south-eastern boundary of Lime Down A, and the north-eastern boundary of Lime Down C.
- 10.3.31 The southern section of the bridleway that runs through the Lime Down A arrays is within a much wider corridor (up to c. 100m at the widest point, although only c. 50m from panels in the field to the north), but the central section is up to 30m wide, for a distance of c. 650m.
- 10.3.32 The bridleways and BOATs through Lime Down A and C are well used walkers and apparently, occasionally by cyclists (on mountain bikes); they are especially well used by equestrians, either passing through, or by those based at nearby equine establishments, for example at Ladyswood and Sherston (see Section 8.6).
- 10.3.33 Very importantly, as mentioned previously, equestrians' eye-level is higher than pedestrians', so often, they can see over hedges which otherwise screen pedestrians' views.
- 10.3.34 However, without photomontages, it can be difficult to understand the nature of the effects that would arise along the PRoWs crossing the sites, and in my opinion, the Applicant should have provided them – see below.

#### **Photomontages: PRoWs Crossing Sites Lime Down A - E**

- 10.3.35 As mentioned previously, only **one** of the LVIA's photomontages (in [APP-117]) illustrates the changes in views that are would be experienced by people travelling along the PRoWs which cross sites A – E.
- 10.3.36 This photomontage shows the view from LVIA **VP CNL C** (requested by the CNLB), where the PRoW (a public footpath) runs through the northern part of Lime Down A. However, **no panels are proposed in the field which this PRoW crosses.**
- 10.3.37 It would be very helpful if additional photomontages from viewpoints along PRoWs crossing the sites could be produced, at locations to be agreed through consultation, especially with local residents (see also effects on public views below). **### request for information**

- 10.3.38 This information can then be factored into the visual assessment, especially **sequential** visual effects, ie where people would experience the adverse effects of travelling along corridors between arrays, or between arrays and field boundaries, multiple times during a single journey. This would particularly affect people in the villages close to the Scheme, who regularly use the PRoW network to walk in loops of various lengths through the surrounding countryside.
- 10.3.39 To give an idea of the adverse visual effects that may be experienced by users of fenced PRoWs running through solar sites, the first CGI overleaf is the existing view along a PRoW through a field where solar development was proposed on one side with woodland on the other, at a point where the corridor had been widened out to c. 30m to accommodate the applicant's proposed picnic area (so not the reasonable worst-case scenario of panels on both sides of the PRoW). The second image illustrates the Year 1 view at the same location.

*Existing view*



*Developed view*



10.3.40 In my opinion, even with wide corridors where PRowS are at distances from the development such that it becomes less dominant / overbearing than when close-up, receptors still experience high / significant levels of adverse visual and other effects, sometimes over extensive areas.

## 10.4 Effects on Private Views

10.4.1 Residents may have submitted / will submit detailed reports about the visual effects they consider would be experienced at their own / other properties during all stages of the Scheme. I understand that several have asked if the Examining Inspectors would visit some of the properties to ascertain for themselves what the effects are likely to be (including non-visual effects).

10.4.2 The LVIA's conclusions about visual effects on private views are summarised in [APP-192] LVIA Appendix 8-3-3 *Summary of Visual Effects*.

10.4.3 Broadly, they are as follows:

- i) During **construction and Years 1 – 15 of operation** (although in theory at least, levels of adverse effects should reduce as the years pass), **significant** adverse visual effects would only be experienced by **nine** residential receptors (grouped / individual properties). The levels of adverse effects at eight of the properties are predicted to be **Moderate**, at one (Grain Store Barn, Farleaze [RG020]), the level would be **Major – Moderate**.
- ii) Between **Years 15 and 60 of operation**, the LVIA concludes that there would be **no** significant adverse effects on private views (at the identified properties).

10.4.4 I do **not agree** with these conclusions: in my opinion, as with public views, levels of visual effects on private receptors have been **underestimated**, and mostly for the same reasons.

10.4.5 For example, and very importantly, in some cases, levels of visual receptor value are reported to be **Low** when the properties are within **High** value landscapes, which increases levels of overall effects.

- 10.4.6 As an example, take RG020: Grain Store Barn, Farleaze (on page 199 of [APP-192]).
- 10.4.7 The LVIA reports Low visual value plus High visual susceptibility, so **Medium** visual sensitivity receptors. However, *High* value plus High susceptibility equals **High** sensitivity ([APP-187] LVIA Table 8.1.1.12).
- 10.4.8 During construction and Years 1 – 15 of operation, the LVIA predicts a **High** Adverse magnitude of change on a Medium sensitivity receptor, resulting in a **Major - Moderate Adverse (significant)** level of overall effect. However, with **High** sensitivity receptors, the level of overall effect is **Major Adverse (significant)** ([APP-187] LVIA Table 8.1.1.14).
- 10.4.9 Between Years 15 and 60 of operation, the LVIA predicts a **Medium** magnitude of change, resulting in a **Moderate – Minor Adverse** level of effect, which is not significant. However, with **High** sensitivity receptors, according to Table 8.1.1.14, the level of overall effect is **Major - Moderate Adverse (significant)**.
- 10.4.10 Importantly, although the LVIA concludes that visual receptors at Grain Store Barn would experience the highest level of adverse visual effects, the above principles apply to all visual receptors within the CNL and its setting, where the value of the landscape (and thus visual value), is **High**, not Medium or Low (as stated in the LVIA). Therefore, many of these visual receptors are likely to experience **significant adverse visual effects for the duration of the operation**.
- 10.4.11 Also, the LVIA's predictions do not include consideration of other key factors which would result in levels of adverse visual effects being higher than predicted.
- 10.4.12 The most important of these is that even if full screening could be achieved, the result would be the **total loss of the view**. As explained above, this is one of the LVIA's criteria for a **High Adverse** magnitude of visual change (and I agree), so for High sensitivity visual receptors, the level of effect would be **Major Adverse (significant)**.
- 10.4.13 Other factors include the LVIA assuming that by Year 15, all the proposed screen planting would have become effective, whereas a) woodland would take far longer than that, and b) it is not possible to predict with any certainty that existing / proposed screening vegetation would remain in place for the lifetime of a development (or in the case of new planting, establish in the first place).

#### **Residential Visual Amenity Assessment (RVAA)**

- 10.4.14 As explained in Section 9, visual amenity is a component of residential amenity, usually called residential visual amenity. RVAAs are often considered to be the appropriate form of assessment when considering effects on residential visual amenity, often carried out alongside LVIAs / LVAs, and usually undertaken in accordance with the Landscape Institute's guidance on the subject.
- 10.4.15 In fact, RVAA was developed specifically to assist with judgements about whether a development's visual impact on a private home breaches the 'amenity threshold', ie the levels of adverse effects are so high that it becomes a matter of public interest to refuse it. This is based on what is often called 'the Lavender test'.
- 10.4.16 However, it is important to note that even if LVIAs conclude that levels of adverse effects on people in / at private properties would be 'significant', this does not automatically mean that the amenity threshold is crossed.
- 10.4.17 The Applicant's approach to RVAA is set out briefly in the LVIA report, at paras. 8.7.68 – 8.7.71. In summary, the LVIA concludes that having carried out the first three steps in the RVAA process, a 'full' RVAA is **not** required for this project. A 'full' RVAA entails moving on to Step 4 of the process,

which is the final stage, carried out when Step 3 has concluded that the development would breach the amenity threshold in terms of effects on views.

- 10.4.18 The decision that the Applicant's RVAA need **not** proceed to Step 4 is based on the RVAA guidance, which states, '*In this final step, and only for those properties where the **largest** magnitude of effect has been identified, a further judgement is required*' (emphasis added). Figure 1 on page 7 of the guidance shows that Step 4 entails, '*Detailed assessment of individual properties identified in Step 3 as having the **greatest** magnitude of change such that the Residential Visual Amenity Threshold may be engaged*' (emphasis added).
- 10.4.19 However, neither the guidance nor the LVIA explain how to establish the criteria for judgements about what constitutes the 'largest' or 'greatest' magnitude of effect.
- 10.4.20 Para. 5.3 of the Guidance states that the aim of RVAA '*is to identify those residential properties whose visual amenity has the potential to be affected to the **largest** magnitude of impact. Properties with the highest magnitude of effect are assessed further culminating in a professional judgement as to whether the Residential Visual Amenity Threshold is likely to be reached at this property or not*' (emphasis added).
- 10.4.21 Appendix 1 of the Guidance provides '*some background to the RVAA guidance with reference to inquiry / appeal decisions that illustrate how Inspectors and Reporters have reached conclusions in respect of Residential Visual Amenity*'.
- 10.4.22 Para. A1.2 refers to Case reference IEC/3/105/3, with the Reporter's conclusion being that '*Any assessment of acceptability in these circumstances relies on judgement rather than measurement*', his opinion being that the project '*would have a **significant** detrimental impact on the visual amenity of some of the people living nearby*' (emphasis added).
- 10.4.23 However, para. A1.9 goes on to say (with emphasis added):
- 'The Inspector also observed that judging serious harm to living conditions which might lead to a recommendation for planning permission to be refused in the **public interest** is a **more stringent requirement than identifying of a significant adverse effect in EIA**, stating:*
- "I consider that when assessing the effect on visual outlook, it is helpful to pose the question 'would the proposal affect the outlook of these residents to such an extent i.e. be so unpleasant, overwhelming and oppressive that this would become an unattractive place to live?'"*
- 10.4.24 Indeed, ultimately, that is the specific question that RVAA was developed to answer (see 'Lavender test' above).
- 10.4.25 Also, it is important to note that the Guidance does **not** state that the RVAA threshold only applies to **residual** effects, ie once proposed screening measures are assumed to have become effective (in this case, Year 15). However, the Applicant's LVIA has adopted this approach. Again, some practitioners disagree about this. Many carry out RVAAs when the threshold is met in **Year 1**, not subsequent years (in this case, Year 15), because until mitigation became fully effective (assuming it would be), residential receptors would experience **significant** adverse effects.
- 10.4.26 Indeed, that is the case at Grain Store Barn, where receptors would experience the **largest magnitude of impact (High Adverse** in the LVIA) until views were screened, assuming that is possible and likely.
- 10.4.27 In addition, as previously mentioned, whilst the LVIA categorises all residential receptors as being of **High** susceptibility, at Grain Store Barn and elsewhere, it judges visual value to be **Low**, despite having concluded that the landscapes which are viewed and which would be significantly adversely affected, are of **High** value.

- 10.4.28 In the LVIA, the combination of Low value plus High susceptibility has resulted in a **Medium** level of sensitivity having been attributed to receptors at Grain Store Barn. Evidently, High value plus High susceptibility equals **High** sensitivity.
- 10.4.29 Therefore, according to [APP-187] LVIA Table 8.1.1.14, with the predicted **High Adverse** level of magnitude of effect, the overall level of adverse effect experienced by these receptors would be the **highest possible level**, ie **Major Adverse**.
- 10.4.30 Furthermore, as explained in previous sections, there is no certainty that levels of adverse visual effects would reduce after 15 years, as the LVIA predicts. At Grain Store Barn the LVIA concludes that levels of magnitude would reduce to Medium, and overall effects to Moderate - Minor Adverse. My own assessment concluded that the **reasonable worst-case** scenario is that levels of adverse effects would remain at the highest level for the duration of the operation.
- 10.4.31 In my opinion, the level of effect that would be experienced by receptors at Grain Store Barn **does** cross the threshold for 'full' RVAA. That may also be the case for other residential receptors.

## 11. Glint and Glare Effects

- 11.1 The Applicant's assessment of glint and glare effects is in [APP-097] ES Volume 3, Appendix 20-4 *Solar Photovoltaic Glint and Glare Study* September 2025 Revision 1.
- 11.2 'Glint' and 'glare' are sometimes grouped under the term 'solar reflection', which is what causes them. Glint is a momentary flash caused when sunlight hits a smooth surface such as water, glass, or a solar panel. Glare is diffused light caused by the reflection of the sky on such surfaces; it is less intense than glint, but the effect may be experienced continuously for long periods throughout the day. The phenomena can affect a variety of receptors in different ways.
- 11.3 Both phenomena are known to at best distract, and at worst, cause brief loss of vision – also known as flash-blindness – in motorists and other road-users, train drivers, and pilots, which can cause serious road, rail and air accidents.
- 11.4 Both are unpleasant / cause visual discomfort when viewed from relatively long distances, and are reported to be highly disturbing / disorientating when experienced at close quarters, especially regularly / for long periods of time. In close proximity, there is the potential for ocular damage<sup>30</sup>.
- 11.5 Having spoken to workers on solar construction sites, I know that some people working in solar arrays are supplied with protective eyewear. At a recent solar appeal hearing that I attended, one of Pager Power's experts confirmed that workers sometimes wear sunglasses. A paper published in 2024<sup>31</sup> states that '*Work under the sun in an outdoor environment is an unavoidable part of BIPV installation and maintenance. This exposes the solar workforce to harmful OSH risks which includes discomfort glare and UV radiation which can lead to **visual fatigue, accidents, and serious diseases of the eye**. Little or no research is available for addressing these risks'* (emphasis added). The study's aim is to '*design and develop an eye protector for risk mitigation*'.
- 11.6 The effects can negatively affect the quality of people's lives and their well-being, including their visual, recreational / social, and residential amenity, and the way the landscape and features such as heritage assets are experienced. They can also negatively affect creatures such as birds and bats<sup>32</sup>. In addition, they can indirectly adversely affect the local economy, in terms of people who enjoy visiting unspoilt rural areas being deterred from doing so, with knock-on effects on the businesses which cater for them – see previous sections.
- 11.7 As explained below, the Applicant's Glint and Glare Study (GGS) considers effects on certain aspects of certain people's safety, and residential amenity, but does **not** consider effects on visual or social / recreational amenity, nor does it consider heritage, ecological, or socioeconomic effects.
- 11.8 Note that the Applicant's LVIA does not appear to consider the effects of glint and glare on landscape character or visual / other amenity at all – at least, glint and glare is not mentioned. Nor does the GGS appear to have been cross-referenced with the LVIA – only existing screening vegetation is mentioned, not proposed – see below.
- 11.9 Here it must be noted that currently, in the UK there is no formal published guidance for carrying out GGSs, only high-level guidelines from the Civil Aviation Authority (CAA) (the USA's Federal

<sup>30</sup> *Understanding Emerging Impacts and Requirements Related to Utility-Scale Solar Development* (September 2016), Argonne National Laboratory, <https://publications.anl.gov/anlpubs/2016/10/130700.pdf>

<sup>31</sup> Abhijit Sen, Abdulrahman Khamaj, Sougata Karmakar, *Design intervention for addressing the safety and health risks of discomfort glare and UV radiation associated with BIPV installation and maintenance*, Energy and Buildings, Volume 318, 2024, 114479, ISSN 0378-7788, <https://doi.org/10.1016/j.enbuild.2024.114479>. (<https://www.sciencedirect.com/science/article/pii/S0378778824005954>)

<sup>32</sup> See for example P.A. Fleming, *All that glitters – Review of solar facility impacts on fauna*, Renewable and Sustainable Energy Reviews, Volume 224, 2025, 115995, ISSN 1364-0321, <https://doi.org/10.1016/j.rser.2025.115995>. (<https://www.sciencedirect.com/science/article/pii/S1364032125006689>)

Aviation Administration (FAA) also has guidance on the assessment of effects of solar developments near aerodromes).

- 11.10 There is, however, informal guidance in the form of a method, produced by Pager Power, which is the company which carried out the Applicant's GGS, called *Independent Solar Photovoltaic & Building Development – Glint & Glare Guidance*, currently fourth edition (September 2022). Indeed, Pager Power appear to carry out GGSs for the majority of the solar developments proposed in the UK, and many globally.
- 11.11 Analysis of the method confirms that GGSs primarily consider **safety**. They assess the effects of glint and glare on human receptors who, if affected by the phenomena, could potentially cause a major accident resulting in large numbers of casualties, ie pilots and people in air traffic control towers; train drivers; and people driving vehicles along '*major national, national, and regional roads*'.
- 11.12 The above matters involve technical issues with which I am not familiar. SLD decided to appoint an independent glint and glare expert to review and analyse the Applicant's GGS and report the findings, to assist the Examination of this aspect of the Scheme. The expert's paper will be submitted as part of the group's WR – see also below. I have had assistance from the glint and glare expert in producing this section.
- 11.13 Also see reference to glint and glare effects on highway receptors in Section 11 of SLD's highways expert's report.
- 11.14 Usually, GGSs also consider effects on the **safety of people using minor / local roads and lanes**, but for reasons which are explained below, effects are almost always only considered at a high level. In fact, the Applicant's GGS has **scoped out** all the minor / local roads within the study area. It only assesses effects along the A429 (which is one of the proposed construction routes), which bisects sites Lime Down D and E.
- 11.15 Note that the GGS calls the southern section of the A429 'Bradfield Cottages', but I believe Bradfield Cottages is the name of the lane off the A429 leading to Norton (also construction route): **clarification of this would be helpful. ### clarification**
- 11.16 The GGS has also carried out a 'high level' assessment of effects on the **safety of people using PROWs**, in Section 8. The summary concludes that '*No significant impacts are predicted upon public rights of way. No mitigation is required*'.
- 11.17 **However**, not only in my opinion, but also that of SLD's glint and glare expert, the GGS's conclusions about effects on the safety of receptors using both minor roads and PROWs are based on criteria and assumptions set out in the informal method which are **flawed**, as explained below.
- 11.18 In my experience, GGSs, including this one, do **not** assess effects on **public visual (or social / recreational) amenity**, in terms of the adverse changes to the experiences of people using local lanes and PROWs, and visiting heritage assets, and other public attractions / facilities (for example, equestrian centres). There is **no mention** of such considerations in Pager Power's informal method.
- 11.19 I assume that the GGS did not account for equestrians' higher eye-level, although **clarification of this point would be helpful. ### clarification**
- 11.20 The GGS does include assessment of effects on **residential visual amenity**. The summary conclusion (on page 4) is that '*Solar reflections are geometrically possible towards 200 of the 248 assessed dwellings...*' (this gives a good indication of the number of dwellings that could potentially be affected across the whole Scheme, noting that the GGS only considers receptors within 1km, and along the A429 corridor). For **all** other dwellings, the GGS concludes that '**screening in the form of existing vegetation and/or intervening terrain is predicted to obstruct**

*views of reflecting panels. No significant impacts are predicted, and no mitigation is proposed'* (emphasis added).

- 11.21 The problem with this is the assumption that the existing screening vegetation would a) screen views all year round, whereas in many cases it would only filter; and b) remain in place for the duration of the operation, which as explained previously, is highly unlikely. Note that this assumption applies to **all** ground-based receptors.
- 11.22 Also, the GGS does not appear to have factored in the LVIA's proposed 4.5m tall hedges, which could potentially **help** to reduce adverse glint and glare effects experienced by ground-based receptors; however, conversely, they would also result in the **total loss of view**, with associated High levels of adverse effects.
- 11.23 Another concern is that for roads and PRoWs, the GGS adopts an arbitrary **1km study area**, as per the informal guidance. However, neither the informal guidance nor the GGS justify the reason for the study area being limited to 1km. Very importantly, the 1km limit does not factor in i) the size of the proposed development, nor ii) the elevation of the viewpoint.
- 11.24 From speaking to experts in this field, I understand that the size of the solar array area/s has a direct effect on glare impact, and for utility-scale schemes, study boundaries of **3 - 5km** are considered most appropriate.
- 11.25 The informal guidance also notes – and my experience confirms – that depending on factors such as topography, and angle and elevation of the target and viewpoint, the adverse effects of glint and glare at public and private viewpoints can be experienced over long distances (note pilots in the air are potentially affected at distances of up to **30km** from sites).
- 11.26 The informal guidance does not appear to state whether elevation and angle of view should be considered in the assessments, but these are relevant factors. For example, North Somerset Council's revised *Solar Voltaic Arrays Supplementary Planning Document (SPD)* states that *'Particular consideration should be given to the glint and glare impact on properties that are higher up a slope than the solar development, as the angles involved mean that these are most likely to experience any glint and glare effects created'*.
- 11.27 The above matters need to be considered in the light of SLD's glint and glare expert's conclusions about the Applicant's GGS, which include **'significant methodological and presentational concerns'**, explained further below.
- 11.28 One particular matter of **significant concern** is that the GGS's conclusions about effects on the **safety** of receptors using minor roads and PRoWs are based on criteria and assumptions set out in the informal method which appear to be **flawed**.
- 11.29 Note that SLD's glint and glare expert's opinion raises concerns about some ground-based receptors experiencing glare all year round from multiple directions, as opposed to effects on static receptors at one location, ie sequential effects, and low sun angles, seasonal effects and wet panel conditions apparently not having been properly captured. In SLD's highways expert's opinion (see Section 11 of the highways report), *'glint and glare raises additional highway safety concerns that have not been assessed by the applicant'*.
- 11.30 According to Pager Power's method, people using minor roads and PRoWs are categorised as **Low** sensitivity receptors. This is mainly due to the assumption that only **Low** numbers of people use these routes. Therefore, any incidents would result in **Low** numbers of fatalities / casualties. See GGS Section 8.2.
- 11.31 I consider it **unacceptable** to say that because receptor numbers are **Low**, levels of effects would be **Low, because multiple fatalities / casualties would not occur**.
- 11.32 Also, as explained in previous sections, some of the lanes and PRoWs in the study area **are** popular and very well used, especially the long-distance trails, and the footpaths and bridleways

which connect them to each other, and to the CNL, and the towns and villages. Many of the users are of **High** visual sensitivity. In my opinion, it would be much more helpful if GGS and GLVIA3 methods were aligned (as has previously been suggested to the Applicant's glint and glare consultants), especially the criteria which are set and applied for establishing the above receptors' sensitivity.

- 11.33 In the past, I and others have questioned the above and other aspects of Pager Power's informal method, but without definitive resolution. Also, I can only draw conclusions about landscape-related matters such as amenity, as I am not an expert in the technical aspects of glint and glare assessment.
- 11.34 However, now, SLD's glint and glare expert has concluded that the GGS raises '**significant methodological and presentational concerns**', stating that the report is '*opinion-based rather than evidence-based*', and its conclusions '**cannot be independently verified from the information provided**'. Also, '*the absence of published quantitative thresholds against which individual glare durations are judged represents a **fundamental evidential deficit** in the submitted Environmental Statement*' (emphasis added).
- 11.35 The absence of quantitative thresholds is directly relevant to the matter above, ie the GGS having categorised people using minor roads and PRoWs as **Low** sensitivity receptors due to the (erroneously assumed in this case) **Low** numbers of people the GGS (and informal method) assumes would use such routes. Therefore, according to this approach, glint / glare incidents would 'only' result in **Low numbers of fatalities / casualties**.
- 11.36 Under the heading *The Annex D Framework — Absence of Quantitative Thresholds*, Section 6.3 of SLD's glint and glare expert's paper **confirms** my analysis of Pager power's method in this regard.
- 11.37 It states, '*The critical deficiency of the Annex D framework as applied in this report is that it does not provide any quantitative thresholds that define the boundary between impact significance categories... The determination of impact significance is therefore a matter of professional judgement exercised by Pager Power, without providing the evidential basis for that judgement to the decision-maker... The consequence of this approach is that **the report cannot be independently verified***' (emphasis added).
- 11.38 In summary, the Applicant's GGS is based on methods which, according to experts, appear to be highly flawed.
- 11.39 In the light of the available evidence and SLD's experts' opinions, my assessment and review concluded that many ground-based receptors using local roads and PRoWs, and on private land, could potentially be **significantly adversely affected** by glint and glare in different ways, in terms of safety, amenity, and possibly, trade, in that glint and glare is likely to contribute to the reasons why people may no longer enjoy visiting the area – see Section 9.
- 11.40 However, as with landscape and visual effects, the visual effects of glint and glare tend to reduce gradually with distance, so the highest levels of adverse effects would be experienced within / in proximity to the Order Limits where the solar arrays are located, especially along the PRoWs which cross sites Lime Down A – E, where solar arrays are proposed.

## 12. Cumulative Effects

- 12.1 My review concluded that the Applicant's LVIA's assessment of cumulative landscape and visual effects (both inter- and intra-project) is **unsatisfactory**.
- 12.2 In my opinion, it does not provide an accurate / realistic indication of the extent and levels of the adverse cumulative effects that would arise from the Scheme, whether in isolation, or in combination with others. My own assessment concluded that the extent and levels of cumulative effects would be **greater and higher** than the LVIA predicts. Note that the LVIA does not consider cumulative effects on recreational, social, or residential amenity.
- 12.3 The LVIA concludes (at para. 8.13.14) that **significant** adverse cumulative effects '*are recorded within 1km Local Study Area during Construction and Year 1. However, there are no cumulative development sites within the 1km Study Area and the significant effects are derived solely from the Lime Down Scheme*'. The LVIA also concludes that by Year 15 of operation, the level of effect would fall below the significance threshold.
- 12.4 No significant effects are recorded within the 2km Wider and 5km Study Areas either.
- 12.5 I do **not agree** with these conclusions, partly for the same reasons why I do not agree with many of the LVIA's predictions.
- 12.6 Firstly, [APP-187] ES Volume 3, Appendix 8-1 LVIA Methodology para 2.33 states that the LVIA assessed effects in-combination with '*similar developments, these being solar projects in the local area*'. However, Table 21-4 of [APP-073] ES Volume 1, Chapter 21 *Cumulative and In-combination Effects* sets out the shortlist of developments to be considered in the cumulative assessments: **as well as solar**, the list includes BESS, residential, commercial, road infrastructure, and other types of development of relevance to cumulative effects on landscape and views. It is not clear whether the LVIA did include these developments, and **clarification of this would be helpful**. ### clarification
- 12.7 Secondly, the LVIA's assessment of cumulative landscape effects is based on **intervisibility** which, as explained previously, is only **one** aspect of the relevant considerations (and arguably, small – see *Figure 1: What is landscape?* in Section 4, where 'sight' only occupies a small proportion of the wheel): non-visual aesthetic, perceptual / experiential effects such as noise, disruption, pollution and so on (see Section 6) must also be factored in.
- 12.8 Thirdly, the LVIA's assessment of cumulative visual effects appears to be based on 'static' views, and does not include consideration of the inter- and intra-project cumulative **sequential** visual effects that would be experienced by people travelling around the area during a single journey.
- 12.9 Nor does the assessment take into account the fact that not only would many residents (and probably some visitors) experience adverse sequential visual effects, but they would also continue to experience those adverse effects at home / their destination / temporary residence.
- 12.10 Fourthly, the LVIA's assessment of cumulative landscape and visual effects relies on conclusions about the Scheme's landscape and visual effects which in my opinion, and as explained in previous sections, are flawed, and therefore cannot be relied upon.
- 12.11 Evidently, factoring in the presence of existing solar (and other forms of industrialising) developments would **increase** the LVIA's predicted levels of adverse inter-project cumulative landscape and visual effects.
- 12.12 Note that assessments of cumulative effects on landscape, visual and other amenity should consider receptors / factors and effects upon them which are normally covered in depth in the relevant topics, such as historic landscapes / the settings of heritage assets; wildlife sites / habitats; soils; water quality; highways / PROWs; safety; health and well-being; and the local economy.

- 12.13 Also, whilst not strictly landscape-related, adverse effects on the local economy can indirectly change landscapes and the ways in which they are used and experienced.
- 12.14 In addition, apart from in an excerpt from '*Renewable and low carbon energy, Ministry of Housing, Communities & Local Government, date: 18 June 2015, accessed on: 01/11/2021*', the Applicant's GGS does not refer to **cumulative** glint and glare effects. I therefore assume that **cumulative effects were not assessed**. If that is the case, in my opinion, it is an **omission that should be rectified. ### request for information**
- 12.15 Furthermore, as mentioned previously, the adverse effects of this Scheme are **amplified** by the Scheme Design Parameters providing for the general use of tracker solar panels up to 4.5m above ground level – see visual effects in Section 10. In isolation, the use of taller panels as opposed to shorter non-tracking panels would increase the extent and levels of adverse glint and glare effects on landscape character; visual, recreational and residential amenity; the settings of heritage assets; and wildlife, which needs to be factored into the assessment of cumulative effects.
- 12.16 However, given that on its own the proposed development would give rise to extensive significant adverse effects on landscape character, visual and other forms of amenity, in my opinion there can be no doubt that in combination with other existing and proposed industrial / industrialising developments within the study area, the inter-project cumulative landscape-related effects would also be significant adverse, but levels would be considerably higher due to them being even more extensive / widespread.
- 12.17 It must also be borne in mind that – as GLVIA3 makes clear (eg at para. 7.17, 3<sup>rd</sup> bullet point) – taken individually / separately, effects may not be categorised as 'significant'; however, when combined / experienced as a whole, they may become 'significant'. Here, the Scheme's **intra**-project cumulative effects would be 'significant', as well as the **inter**-project cumulative effects.
- 12.18 Also, more development results in ever-more pressure being put on ever-decreasing landscape resources, meaning that the existing resources become even more valuable, and more susceptible to these forms of change.

## 13. Conclusions

- 13.1 I **agree** with the Applicant's LVIA ([APP-060] ES Volume 1, Chapter 8: *Landscape and Visual*), which concludes that broadly, the proposed development would result in **significant adverse effects on landscape character and visual amenity**, some of which could not be mitigated, and would be experienced throughout the Scheme's operational lifetime.
- 13.2 Specifically, within the Order Limits, during construction, operation, and decommissioning, there would be **significant adverse direct residual effects on landscape character**, including on the **setting of the Cotswolds National Landscape (CNL)**, which is **adjacent** to the Scheme's north-western boundary.
- 13.3 There would also be **significant adverse indirect effects on landscapes (and villages / communities), including within the CNL and its setting**, during construction, and at least the first 15 years of operation.
- 13.4 At many public and private viewpoints, receptors would experience **significant adverse visual effects**, some for the duration of the operation.
- 13.5 I **agree** with the above conclusions.
- 13.6 In addition, although the LVIA did not expressly deal with the matter, in my opinion, during all phases of development, the Scheme is likely to result in **significant adverse** effects on people's social / recreational amenity, and health and wellbeing.
- 13.7 My assessment concluded that not only do people evidently value these landscapes very highly, but also, the rural landscapes, and the communities they support, are **highly** susceptible to the large-scale highly industrialising form of change which is proposed.
- 13.8 In fact, the LVIA concludes, and I **agree**, that the landscapes within both the CNL **and** its setting (the latter including much of the Scheme), and many human receptors, are of **High** sensitivity (the highest level in the Applicant's LVIA), which is the result of the combination of High levels of value and susceptibility.
- 13.9 The **High** level of landscape and visual value is due mainly to the important landscape-scale, natural and cultural functions these landscapes perform, and services they provide and support.
- 13.10 The landscapes are predominantly of **High** quality, with very few detractors, many positive characteristics, and **High** levels of positive aesthetic, perceptual and experiential qualities, which include local distinctiveness; strong sense of place; highly rural; sparsely-settled; very tranquil; well-managed; considerable visible and buried time-depth; and great biodiversity. The landscapes also offer a wide range of high quality 'natural' / informal recreational resources which are important to residents and visitors alike, many of the latter coming from around the world to enjoy them.
- 13.11 The **High** level of landscape susceptibility to change of the type proposed here is due mainly to factors such as absence of existence of similar industrialising forms of development, and few detracting features within zones of interinfluence; very limited potential for fully-effective mitigation and meaningful enhancement; and little or no ability to replace, repair, substitute, and / or compensate for existing highly-valued landscape characteristics / elements / features / qualities / functions / services that would be damaged / lost, including irreplaceable habitats..
- 13.12 However, notwithstanding agreement with the Applicant that overall, landscape and visual effects would be 'significant' adverse, in many cases I do **not agree** with the LVIA's conclusions about the predicted **levels** of adverse effects. In my opinion, in many cases, the levels have been **underestimated**, including the **extent** and **duration** of the effects.

- 13.13 This is important because the LVIA concludes that in several cases, levels of adverse landscape and visual effects would either not breach the significance threshold (which has been set at 'Moderate'); or, after 15 years of operation (when the LVIA assumes the proposed screen planting would have become established and fully effective), levels would fall **below** the threshold. However, where levels have been underestimated, the higher level **would** breach the threshold. Therefore, the level of **harm** to landscape character and visual / other amenity would be **greater** than the LVIA assumes.
- 13.14 This applies to effects during construction as well as operation. The LVIA concludes that overall, during construction, levels of both direct and indirect landscape and visual effects would be **significant** adverse, but that the level would only be '**Moderate**'. I do **not agree** with this conclusion.
- 13.15 Firstly, my own assessment concluded that for the landscapes and visual receptors of the highest sensitivity, many of the adverse effects, including along the construction route, which runs through the **CNL and its setting**, would be **up to Major Adverse**.
- 13.16 Secondly, the LVIA's 'Moderate' judgement is mainly based on construction works being temporary; however, relative to the whole lifetime of the Scheme, the works may be considered 'short-term', but overall, the effects would still be **significant adverse for the duration of the works**.
- 13.17 Note that the CNLB's current position on the construction route is that for the above and other reasons, '**construction traffic should be routed outside of the CNL**'. Also, that SLD's highways expert concludes that '*the applicant has not properly assessed the potential for the development to lead to **unacceptable impacts on vulnerable highway users**, contrary to the requirements of EN-1*' (emphasis added).
- 13.18 There are several reasons why, in my opinion, the LVIA underestimates levels of adverse landscape and visual effects. Some relate to lack of baseline-gathering and granular analysis, others to what I consider to be misinterpretations of / departure from the relevant guidance. In some cases, the LVIA's justifications for the judgements are not clear or easy to follow, and there appear to be inconsistencies.
- 13.19 Another very important point to note is that the Applicant's LVIA concludes that by Year 15 of operation, when it assumes that the proposed planting would have become established / fully effective, the Scheme would result in **Moderate Beneficial (significant)** effects on the character of sites Lime Down A – E<sup>33</sup>, ie where the proposed solar arrays and other infrastructure would be located. As a result, the LVIA concludes that there would be '**beneficial landscape effects within the setting of the CNL in the long term which would further the purposes of the designation**'.
- 13.20 I do **not agree** with this conclusion. My own assessment concluded that the proposed development would result in **direct significant adverse** effects on the overall character of the sites for the duration of the operation, and the effects could not be mitigated.
- 13.21 Firstly, in my opinion, one reason why the LVIA identifies **beneficial** effects on landscape character is because it has assumed that landscape / visual mitigation can be **double-counted** as landscape / visual enhancement, when, according to GLVIA3 at least, it cannot. However, the LVIA does not clearly differentiate between which measures are mitigation, and which are enhancement.
- 13.22 Secondly, the LVIA appears to have conflated what it calls landscape 'fabric' (usually called landscape 'elements', which are individual parts of landscape such as trees, hedges and buildings), and 'overall character', of which elements are only a part ('overall' character relates to the

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<sup>33</sup> Sites Lime Down A – E are also referred to in this report as 'the sites', or 'main site'; occasionally, the word 'site' is used to describe the entire Scheme, including the proposed cable route.

- 'landscape' as a resource, and as a whole, including its functions and the services it delivers; and factors such as aesthetic and perceptual qualities, especially those which contribute to local distinctiveness).
- 13.23 Importantly, the terms 'fabric' and 'elements / features' are **not** interchangeable with 'overall character', which is what the LVIA itself appears to assume.
- 13.24 Nor do **all** landscape effects derive from changes to physical 'fabric' / elements. Some landscape effects are the result of changes to how a landscape is experienced, and how it functions.
- 13.25 Thirdly, and perhaps most importantly, the LVIA conclusion that the Scheme would result in **Moderate Beneficial (significant)** effects on the character of the sites (albeit not clear whether the assessment as a whole, and the benefits, relate to 'fabric', or overall character), which would **further the purposes of the CNL designation**, has subsequently been **clarified / modified**.
- 13.26 In [PDA-009], the Applicant's response to item ref. **SLD-024 states**, *'It is **fully acknowledged** that **at the Site level, the character of the Site itself (where there is infrastructure) would be Significantly Adversely affected**'* (emphasis added). This **contradicts** the LVIA's conclusions about the development resulting in **beneficial** effects on the overall character of the sites.
- 13.27 However, note that if / where new 'fabric' is proposed **solely** for landscape / visual enhancement, then it could be counted as a landscape / visual benefit. However, if the planting is **only** required for landscape / visual mitigation, then even when established, the effect would be at best **Neutral**. However, whether enhancement or mitigation, the effect of the proposed planting could be **significant adverse**, where, for example, the proposed screening is characteristically inappropriate and / or results in loss of characteristic openness, and / or total loss of view.
- 13.28 Also, the LVIA has not considered that mitigation in the form of screen planting would **in itself** give rise to adverse effects on character, views, and amenity. The requirement for very tall hedges (up to 4.5m high) is in large part due to the Applicant's proposal to use 4.5m-high solar panels, which is unusual for developments of this type, where up to 3.5m is standard.
- 13.29 In many areas, tall hedges are uncharacteristic, and would result in the loss of openness which **is** characteristic. In many cases, tall hedges would result in the **total loss** of public and private views. Both would result in high levels of adverse effects. In fact, the CNLB asked the Applicant to maintain hedges close to the CNL boundary at just 1.5m high for these reasons.
- 13.30 Another important point to note is that the LVIA assumes that where new and / or existing planting is required to mitigate adverse effects on character and views, once it had become fully-established / fully-effective (after 15 years of operation, which is unlikely for the proposed woodlands), the hedges and trees would still be in place, and would remain and continue to be effective screens for the next 45 - 50 years and beyond. In my opinion and experience, for many reasons, that is highly unlikely.
- 13.31 I have questions about a number of matters in the Applicant's LVIA, which hopefully can be resolved during the Examination. In the light of the responses, further review and assessment may be necessary.