

Planning Proof of Evidence.

**Hilfield Solar Farm, Land North of Butterfly Lane,
Surrounding Hilfield Farm and Land west of Hilfield Lane,
Aldenham.**

On behalf of Elstree Green Ltd.

Date: 22/09/2022 | Pegasus Ref: P21-3101

PINS Ref: APP/N1920/W/22/3295268 | LPA Ref: 21/0050/FULEI

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Document Management.

Version	Date	Author	Checked/ Approved by:	Reason for revision
FINAL	22.09.2022	P Burrell	P Burrell	



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1. Personal Background

- 1.1. My name is Paul Burrell. I hold a BSC (Soc Sci) Hons in Geography and Diploma in Urban Planning.
- 1.2. I am a Chartered Town Planner having been elected over twenty-five years ago and I hold the position of an Executive Planning Director at the consultancy Pegasus Group.
- 1.3. I have considerable experience in advising on planning matters concerning low carbon and renewable energy projects, including solar schemes, onshore wind farms and energy from waste facilities.
- 1.4. The evidence that I have prepared and provide for this Section 78 appeal is true and has been prepared and is given in accordance with the guidance of my professional institution. I can confirm that the opinions expressed are my true and professional opinions.

2. Scope and Structure of Evidence

- 2.1. My Planning Proof of Evidence has been prepared on behalf of Elstree Green Ltd ('The Appellant') and relates to a planning appeal submitted pursuant to Section 78 of the Town and Country Planning Act 1990, concerning Land North of Butterfly Lane, Land Surrounding Hilfield Farm and Land West of Hilfield Lane, Aldenham, Hertfordshire ('The Appeal Site').
- 2.2. The appeal follows the decision of Hertsmere Borough Council ('The LPA' and/or 'HBC') to refuse an application for full planning permission (LPA ref: 21/0050/FULEI) for a Proposed Development comprising the following:

“Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter / transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements”

- 2.3. The refusal of the application was confirmed in a Decision Notice dated 19th November 2021 (Core Document CD- PA22). The Reasons for Refusal were worded as follows:

“Reason 1: Inappropriate development in the Green Belt

The proposal would be an inappropriate development that would be harmful to the openness of the Green Belt in which it would be located. The Council considers that the benefits that the scheme would bring are not such as would amount to very special circumstances sufficient to outweigh the harm to the Green Belt, even when the wider environmental benefits associated with the increased production of energy from renewable sources have been taken into consideration (pursuant to paragraph 151 of the National Planning Policy Framework 2021). As such, the proposal would be contrary to paragraphs 147 and 148 of the National Planning Policy Framework and contrary to Policy SADM26 (Development Standards in the Green Belt) of the Hertsmere Local Plan (Site Allocations and Development Management Policies Plan) 2016.

Reason 2: Harm to the significance of designated heritage assets

The proposal would cause less than substantial harm to the significance of the following neighbouring designated heritage assets by reason of its impact on their settings: Slades Farmhouse (listed building, Grade II, entry 1103614), Hilfield Castle (listed building, Grade II star, entry 1103569), Hilfield Castle Lodge (listed building, Grade II, entry 1103570), Aldenham House Registered Park and Garden (Grade II, entry 1000902) and Penne's Place (Scheduled Monument entry 1013001). The public benefits of the development would not be sufficient to outweigh the less than substantial harm that would be caused to the significance of those designated heritage assets, and therefore the proposal is considered unacceptable, pursuant to Policy CS14 (Protection or Enhancement of Heritage Assets) of the Hertsmere Local Plan (Core Strategy) 2013 and



pursuant to paragraph 202 of the National Planning Policy Framework 2021.”

- 2.4. My Planning Proof of Evidence addresses the Planning Policy matters raised in the reasons for refusal, as well as the overall planning balance.
- 2.5. A Statement of Common Ground is in the process of being finalised with the LPA and Rule 6 Parties I therefore rely on the agreement to matters which are not currently disputed between the parties.

Structure of Evidence

- 2.6. My evidence sets out in **Section 3** to provide a contextual overview of why, in my opinion, it is the case that we need renewable energy generation in the Autumn of 2022, and further why the Proposed Development is part of an overarching comprehensive approach to the future management and objectives of the Aldenham Estate. This sets the scene for the further examination of the more detailed issues that follow.
- 2.7. **Section 4** considers the Appeal Site and its Surroundings, before moving on to explain the appeal proposals in **Section 5**. The recent relevant planning history is noted in **Section 6**.
- 2.8. I then move to consider the relevant Planning Policy framework in **Section 7**. I then summarise the Case for the Appellant in **Section 8**, examining the reasons for refusal and the main issues identified by the Inspector. In particular, I examine the Green Belt considerations and draw upon the evidence of Mr Kratt in relation to landscape and visual impact in the context of the Green Belt issue and the impact on visual openness. I then turn to consider heritage setting considerations drawing upon the evidence of Mrs Stoten.
- 2.9. I undertake a careful consideration of the various Development Plan policies which I consider relevant to the determination of this Appeal in **Section 9**.
- 2.10. In **Section 10** I review in greater detail other material considerations, and in particular the various energy policy statements which have consistently emphasised the need for additional low carbon and renewable energy generation, along with relevant National Policy Statements.
- 2.11. In **Section 11**, I turn to consider additional matters as raised by the Rule 6 parties in their Statements of Case. Further other material considerations are discussed at **Section 12**.
- 2.12. I then turn to consider my judgement of the overall planning balance and undertake an examination of the Very Special Circumstances Case for granting planning permission in the Green Belt in **Section 13** of my evidence.
- 2.13. In **Section 14**, I note progress to date on planning conditions and also a S106 undertaking on highways matters.

3. Contextual Overview of the need for Renewable Energy and the Aldenham Estate's aspirations

The pressing need for Renewable Energy in autumn 2022

- 3.1. Whilst it has been the case for more than two decades that UK Government legislation and policy has sought to reduce net greenhouse emissions and, as part of this wider drive, to promote renewable and low carbon energy to decarbonise the electricity generation sector, the sad truth of the matter is that the UK's progress away from fossil fuels has not been achieved at a sufficient rate to secure our energy supplies.
- 3.2. As I explain in more detail in Section 10 of my evidence, the UK's total energy generation actually fell from 2019 to 2020, and again the amount of electricity generation fell to a record low in 2021, over 1% less than had been generated the previous year¹. The amount of electricity we are generating is declining.
- 3.3. Further, the proportion of electricity generated from fossil fuels in 2021 actually increased (by 11%) over the previous year. The decarbonisation of our electricity system is not improving, quite the reverse.
- 3.4. There is also the further issue of the UK's energy security which has unfortunately come to the fore over the previous 6 months with the unfortunate events unfolding in eastern Europe.
- 3.5. Then there is the issue of the cost of energy and the fact that the renewable energy generation is very significantly cheaper than gas-powered electricity at the present time. As I prepare this proof of evidence, the Government is urgently examining ways to reform the electricity market to reflect these lower production costs from renewable sources. The emergency energy price caps rushed through by the new Government in the last couple of weeks demonstrates the huge financial cost to the Country from these policy failures.
- 3.6. For all these reasons, the need to generate more electricity, the need to decarbonise our electricity supplies, the need to ensure safe and secure supplies of energy for the UK, and the need to reduce the cost of electricity which is proving such a huge burden on the national debt and both domestic and business consumers, it is my opinion that these are all individually and collectively compelling considerations which lie very firmly in favour of the principle of granting planning permission for the Proposed Development at this time of a national emergency for energy supplies and delivering on carbon reduction targets.
- 3.7. Further the Proposed Development, by virtue of its proximity and the Appellant's securing of a guaranteed grid connection offer to the nearby Elstree substation (which then directly feeds into North London), means that this particular solar farm proposal can be rapidly deployed and connected to the National Grid, realising the above electricity and battery storage benefits in the near term, unlike other potential forms of energy generation which may take many years to be able to secure a connection offer and then be built out to be able to connect onto the National Grid.

¹ See My Evidence, Section 10, Energy Policy Considerations, in particular paragraph 10.16



Aldenham Estate's wider environmental aspirations

- 3.8. There is a strong synergy between the Proposed Development and the Aldenham Estate's ("the Estate's") aspirations to positively respond, in a highly sustainable manner, to the changing circumstances which affect the ongoing and future management of the Estate.
- 3.9. In particular, the Estate has embarked upon revising its Biodiversity Strategy in accordance with the Environment Act 2021. Initial ideas are being discussed with HBC and it is therefore quite possible that further initiatives could successfully feed into the LEMP in due course through future revisions on a rolling basis.
- 3.10. Through the Proposed Development's increase in Biodiversity Net Gain, by virtue of its proposed ecological management over the 35 year operational phase of the development, the resting of the land from more intensive agricultural practices during this operational period, the post-development longer term legacy in terms of retaining hedgerow and mitigation planting and reinstatement of lost hedgerows, recreating parkland-like landscape in the area to the south, west and north of Hilfield Castle, and retaining the proposed new orchard with its continued management for biodiversity, all will substantially contribute to these longer-term objectives of the Estate.
- 3.11. The Estate can therefore incorporate the wildlife and ecological benefits associated with the operation of the solar farm and further these initiatives through the ongoing future legacy of the Proposed Development to respond in a positive and proactive manner to the challenges which are presented in the Environment Act.



4. The Appeal Site and its Surroundings

- 4.1. A description of the Appeal Site and its surroundings is to be set out in the Statement of Common Ground with the LPA.



5. The Appeal Proposals

- 5.1. A detailed description of the Proposed Development and confirmation of the plans and documents on which the LPA's decision is to be set out in the Statement of Common Ground with the LPA.



6. Planning History

- 6.1. The planning history of the Appeal Site is to be set out in the Statement of Common Ground with the LPA.

7. Planning Policy

7.1. This section identifies the planning policies and guidance that will be of most relevance to this appeal.

The Development Plan

7.2. The Statutory Development Plan applying in respect of the Appeal Site comprises:

- Local Plan Core Strategy Development Plan Document (2013);
- Site Allocation and Development Management Plan (2016); and
- Local Plan 2012–2027 Policies Map (November 2016).

7.3. No Neighbourhood Plans have been made in Hertsmere Borough Council (HBC).

7.4. The LPA commenced initial stages of preparing a new Local plan, including an Issues and options consultation in 2017, followed by a draft Regulation 18 Local Plan consultation in September 2021. However, at a Full Council meeting of HBC held on 26th January 2022, the Council resolved to ‘shelve’ the preparation of this emerging Local Plan.

7.5. It is noted that a South West Herts Joint Strategic Plan is being currently being consulted upon until the 4th November 2022, in respect of its draft vision and objectives. I note that one of the 6 pillars is to ‘*deliver robust and sustainable infrastructure*’, which includes a proposal for ‘*green energy generation*’, under which it explains that one of four proposed objectives would ‘*promote local energy production with an increased focus on renewable resources.*’

Hertsmere Core Strategy 2013

7.6. The Hertsmere Core Strategy was adopted in 2013.

7.7. The principal policies cited in the Committee Report, Decision Notice and the Statements of Case from the various Parties at the Inquiry are listed below. The policy in **bold type** is the policy referenced within the LPA’s Reasons for Refusal and, accordingly, I consider it is compliance with this Policy that is disputed by the LPA. It is therefore also taken that the LPA considers the Policies listed below, which are not referenced in the LPA’s Reasons for Refusal, as being complied with:

- SP1 – Creating Sustainable Development
- SP2 – Presumption in favour of Sustainable Development
- CS12 – The Enhancement of the Natural Environment
- CS13 – The Green Belt
- **CS14 – Protection or Enhancement of Heritage Assets.**
- CS17 – Energy and CO2 reductions
- CS22 – Securing a high quality and accessible environment



Hertsmere Site Allocation and Development Management Plan (2016)

- 7.8. The Hertsmere Site Allocation and Development Management Plan was adopted in 2016.
- 7.9. The policy in **bold type** is the policy referenced in the Decision Notice. Accordingly, I consider it is compliance with this particular Policy that is disputed by the LPA. It is therefore also taken that the LPA considers that the additional Policies listed below, which are not referenced in the LPA's Reason for Refusal, as being complied with:
- SADM11 – Landscaper Character
 - SADM22 – Green Belt boundary
 - **SADM26 – Development Standards in the Green Belt.**
 - SADM29 – Heritage Assets
 - SADM30 – Design Principles

National Guidance

- 7.10. I consider the following are important material considerations:
- National Planning Policy Framework (NPPF);
 - National Planning Practice Guidance;
 - National Policy Statement for Renewable Energy Infrastructure (EN-3) (July 2011);
 - Draft Overarching National Policy Statement for Energy (EN-1) published in September 2021;
 - Draft National Policy Statement for Renewable Energy Infrastructure (EN-3) published in September 2021;
 - UK Government Solar Strategy 2014;
 - Written Ministerial Statement on Solar Energy: protecting the local and global environment made on 25 March 2015;
 - Commercial Renewable Energy Development and the Historic Environment Historic England Advice Note 15 (February 2021).;
 - Government food strategy, June 2022.

Supplementary Planning Guidance

- 7.11. I consider the following are material considerations:
- Hertfordshire Landscape Character Assessment: Hertsmere (2000)
 - Biodiversity Trees and Landscape SPD (2010)



- GreenArc Strategic Green infrastructure Plan (2011)
- Hertsmere Borough Green infrastructure Plan (2011)
- Hertsmere Climate Change and Sustainability Action Plan (2020)
- Hertsmere Climate Change and Sustainability Interim Policy Position Statement (2020)

8. Case for the Appellant

- 8.1. Article 35(1)(b) of The Town and Country Planning (Development Management Procedure) (England) Order 2015 states that where planning permission is refused, the notice must state clearly and precisely the LPA's full reasons for the refusal, specifying all policies and proposals in the Development Plan which are relevant to the decision.

Reasons for Refusal

- 8.2. I consider that the LPA's Reasons for Refusal raises two main considerations:
- i. the alleged harm to the openness of the Green Belt caused by the Proposed Development; and the extent to which very special circumstances are demonstrated sufficient to outweigh that harm to the Green Belt.
 - ii. the alleged unacceptable adverse impact of the proposed Development on the setting of specified heritage assets, namely Slades Farmhouse, Hilfield Castle, Hilfield Castle Lodge, Aldenham House Registered Park and Garden, and Penne's Place.

- 8.3. The LPA therefore asserts in the Reasons for Refusal that the Proposed Development conflicts with Policies CS14 of the Hertsmere Core Strategy 2013 and SADM26 of the Site Allocations and Development Management Policies Plan 2016, and Paragraphs 147, 148 and 202 of the NPPF (2021).

Main Issues

- 8.4. The Inspector in the CMC Summary Note indicated that the main issues for the appeal are as follows:-

Issue 1 ***The effect of the development on openness of the green belt and whether any benefits of the scheme amount to very special circumstances and clearly outweigh any harm.***

Issue 2 ***The effect of the proposals upon the significance of designated heritage assets by way of effects upon their settings, and whether any public benefits are sufficient to outweigh any harm(s).***

- 8.5. Whether the public benefits outweigh the alleged harm is a matter which is considered throughout my Evidence, but is also one I return to at Section 13 of my Evidence.

Issue 1 – Green Belt considerations

- 8.6. NPPF policy framework
- 8.7. In respect of Green Belt policy and purposes, I start by considering the NPPF.
- 8.8. At paragraph 137, the Government is clear as to the great importance to be attached to Green Belts. The fundamental aim of Green Belt policy is stated to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are stated to be their openness and their permanence.

- 8.9. The NPPF then sets out the five purposes of Green Belts at paragraph 138. These comprise a) to check the unrestricted sprawl of large urban areas; b) to prevent neighbouring towns merging into one another; c) to assist in safeguarding the countryside from encroachment; d) to preserve the setting and special character of historic towns; and e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 8.10. The NPPF at paragraph 147 states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. The NPPF continues to state at paragraph 148 that substantial weight should be given to any harm to the Green Belt, and that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposals, is clearly outweighed by other considerations. The NPPF sets out those types of development that are appropriate in the Green Belt, and the proposed Development does not fall into any of these categories listed at paragraphs 149 and 150.
- 8.11. I therefore consider that the Proposed Development is 'inappropriate development' in the Green Belt.
- 8.12. However, NPPF at paragraph 151 does then proceed to make special provision for renewable energy development projects in the Green Belt in the following terms:

'When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.' (underlining is my emphasis)

Proposed Methodology

- 8.13. I therefore consider that this issue on Green Belt should start with examining the two tests established in NPPF paragraph 148, namely:
- The amount of harm to the Green Belt; and then
 - The amount of other harm identified.
- 8.14. It is then appropriate to undertake a planning balancing exercise to establish whether any harm to the Green Belt is clearly outweighed by other considerations including the benefits of the Proposed Development. I examine this judgement in Section 13 of my evidence.
- 8.15. I therefore now turn to examine the amount of harm to the Green Belt.

Harm to Openness

- 8.16. I have noted above that the NPPF states that an essential characteristic of the Green Belt is its openness.
- 8.17. Having regard to National Planning Practice Guidance on the potential impact of development on the openness of the Green Belt, openness is capable of having both spatial and visual aspects.

8.18. Further guidance on the concept of openness is found in case law. In *Samuel Smith*², the Supreme Court referred to “openness” as a broad policy concept describing its purpose as:

“[22]... It is naturally read as referring back to the underlying aim of Green Belt policy, stated at the beginning of this section “to prevent urban sprawl by keeping land permanently open ...”. Openness is the counterpart of urban sprawl and is also linked to the purposes to be served by the Green Belt. As PPG2 made clear, it is not necessarily a statement about the visual qualities of the land, though in some cases this may be an aspect of the planning judgement involved in applying this broad policy concept. Nor does it imply freedom from any form of development. Paragraph 90 shows that some forms of development, including mineral extraction, may in principle be appropriate, and compatible with the concept of openness...”

8.19. In *Turner*³, Sales LJ explains:

“The concept of ‘openness of the Green Belt’ is not narrowly limited to the volumetric approach suggested by [counsel]. The word ‘openness’ is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case. Prominent among these will be factors relevant to how built up the Green Belt is now and how built up it would be if redevelopment occurs ... and factors relevant to the visual impact on the aspect of openness which the Green Belt presents”

8.20. With regard to the **visual aspects of openness**, I refer to the Appellant's Landscape and Green Belt Harm Proof of Evidence prepared by Mr Kratt which addresses the visual openness issues.

8.21. In Section 8 of Mr Kratt's evidence, he concludes that the extent to which built development is apparent in the landscape and that may impact its essential countryside character, is limited by the virtue of the nature of this type of development itself, comprising predominantly low lying solar panels and fencing, and by the character of the existing landscape itself limiting as it does the visibility of development within the site due to its topography and vegetation⁴. He further notes that a large portion of the landscape character area within which the Appeal Site is located would remain undeveloped and its character would prevail⁵.

8.22. The visual impact on the openness of the Proposed Development is assessed by Mr Kratt and the HBC Planning Officer in the report (*Core Document – PA27*) to be in most cases localised, and mitigated through the proposed screening.

8.23. Further Mr Kratt draws attention the positive legacy which would remain after the solar farm has been decommissioned with the benefit of the increased planting and other biodiversity enhancements⁶.

² *R. (on the application of Samuel Smith Old Brewery) v North Yorkshire CC* [2020] UKSC 3; [2020] 2 P. & C.R. 8

³ Sales LJ in *Turner v Secretary of State for Communities and Local Government* [2016] EWCA Civ 466; [2017] 2 P. & C.R. 1

⁴ Mr Kratt, paragraph 8.1.5

⁵ Op cit, paragraph 8.1.6

⁶ Op cit, paragraph 8.1.9

- 8.24. I agree with what Mr Kratt says and I rely upon his evidence in these regards on the localised extent of harm to the visual aspect of openness.
- 8.25. With regards to the **spatial element of openness** the Proposed Development would be introducing development into the Green Belt which would have a spatial impact in that there will be development in an area where there was not previously. In this sense, there would be an impact on openness from a spatial perspective. However, I consider that the nature of the solar panel themselves, which are not solid 3-deminsuioanl structures but are panels mounted on frames which retain an open aspect underneath them, and the open-mesh style fencing are consideration to take into account in determining the extent of this spatial element of the effect on openness.
- 8.26. To assist in informing my assessment on Green Belt harm, I also consider the impact of the Proposed Development on the five purposes of the Green Belt as set out in the NPPF. A comprehensive assessment of the Appeal Site was undertaken by LDA in relation to four of the five purposes of Green Belt was submitted with the Planning Application at Appendix 1 to the Planning Statement (*Core Document CD-PA4, Appendix 1*). I agree with the content and analysis of this document. I therefore draw the following conclusions in respect of each of the five purposes of the Green Belt:
- a) to check the unrestricted sprawl of large urban areas
- 8.27. I agree that the Proposed Development would not result in unrestricted spawl of built-up areas given the distance and lack of intervisibility from existing settlements. The topography and vegetative network of the Appeal Site physically and visually separate the Appeal Site from existing settlements and would contain the Proposed Development.
- 8.28. It is therefore concluded that there would be no harm to this first purpose of the Green Belt.
- b) to prevent neighbouring towns merging into one another
- 8.29. I agree that the Proposed Development would not be perceived as merging neighbouring towns, given the existing distances between settlements, the strong vegetative network of the area, the topography limiting visibility and the existing clear physical boundaries formed by the road network.
- 8.30. It is therefore concluded that there would be no harm to this second purpose of the Green Belt.
- c) to assist in safeguarding the countryside from encroachment
- 8.31. I agree that the Proposed Development will introduce substantial enhancements to the Green Belt in terms of biodiversity, outdoor recreation and interpretation and improving damaged land. Despite the Appeal Site's current limited contribution to the countryside by reason of the existence of man-made features that are visible in the landscape, I agree that there would be some harm to safeguarding the countryside from encroachment, albeit this harm is limited by the design of the Proposed Development, its limited visibility as a result of containment by field boundaries and woodland both within the Appeal Site and within the wider landscape.
- 8.32. I further note that the Proposed Development is reversible and therefore any harm to this purpose of the Green Belt would be reversed on the completion of the decommissioning of the Proposed Development.

8.33. It is therefore concluded that there would be some limited harm to this third purpose of the Green Belt.

d) to preserve the setting and special character of historic towns

8.34. The historic cores of the nearest settlements are Letchmore Heath to the north (520m), Radlett also to the north (700m) and Bushey to the west (1.4km). Given the distances from these historic cores to the Appeal Site, I agree that these historic towns are sufficiently distant from the Appeal Site for them to be unaffected by the proposed Development.

8.35. It is therefore concluded that there would be no harm to this fourth purpose of the Green Belt.

e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land

8.36. The LDA report did not expressly consider this fifth objective for the purposes of that Study. I am of the opinion that granting permission for a solar farm in this location would not prejudice the ability of urban regeneration projects to proceed, and by virtue of providing renewable energy at a time when energy supply is under great pressure, may assist in bringing forward urban generation which is presently being constrained by limited grid capacity in London.

8.37. It is therefore concluded that there would be no harm to this fifth purpose of the Green Belt.

8.38. The overall conclusion reached is that, in terms of harm the purposes of the Green Belt, 4 of the 5 objectives would not be harmed, and there would only be limited harm to the third objective which would be fully reversible upon the decommissioning of the scheme.

8.39. I explain how this should inform the assessment of compliance with planning policy in Chapter 8 of this Statement and when undertaking the Overall Planning Balance in Chapter 13 of my Evidence as to whether very special circumstances can be said to apply.

Other Harm

8.40. In terms of 'other harm' to balance in identifying very special circumstances (in terms of effect on landscape character, heritage assets), I identify and apply my judgement as to the weight to be attached to those 'other harms' in Section 13 of my evidence.

Issue 2 – Heritage setting considerations

8.41. I refer to the Appellant's Heritage Proof of Evidence prepared by Mrs Stoten which deals with this substantive issue.

8.42. In summary, Mrs Stoten concludes that the Proposed Development will cause 'less than substantial harm' ("LTS") to the following heritage assets:

- Slades Farmhouse Grade II listed building – LTS harm, at the low end of the spectrum
- Hilfield Castle Grade II* listed building – LTS harm, at the low end of the spectrum
- Hilfield Castle Lodge Grade II listed building – LTS harm, at the low end of the spectrum



- 8.43. Mrs Stoten concludes that there would no harm in respect of the other heritage assets raised by the LPA and the Rule 6 Parties.
- 8.44. I agree with what Mrs Stoten says and I rely upon this Evidence.
- 8.45. This amount of less than substantial harm identified by Mrs Stoten in respect of the three identified heritage assets is not contrary to policy, but rather should be weighed against the public benefits of the Proposed Development. I further explain how this should inform the assessment of compliance with planning policy in Section 9 of my Evidence and the Overall Planning Balance in Section 13 of this Evidence, which includes a balance of the heritage harm against public benefits as required by the NPPF and in the Overall Planning Balance.

9. Planning Policy Assessment

9.1. In this section I will consider compliance with the relevant policies contained in the Development Plan, as previously referenced in Section 6 of my evidence.

Local Plan Core Strategy Development Plan Document 2013

Policy SP1

9.2. **Policy SP1** relates to 'Creating Sustainable Development' and establishes 17 criteria which relate to all development in the Borough. HBC seeks to enable development in the Borough to make a sustainable contribution to delivering the Core Strategy Spatial Vision and Strategy.

9.3. I examine the implications in respect of each of the relevant criteria in the following sections of my Evidence:

- Criterion (ii) – conserve and enhance biodiversity – paragraphs 9.10–9.12 on Policy CS12
- Criterion (iv) – high quality design and appropriate in scale, appearance and function to the local context, taking advantage of opportunity to improve the character and quality of an area – paragraph 9.31 on Policy CS22
- Criterion (v) – avoid prejudicing characteristics and features of the natural and built environment – paragraphs 9.14–9.15 on Policy CS12 and paragraph 9.31 on Policy CS22
- Criterion (vii) – avoid inappropriate development in the Green Belt – Section 13 consideration of very special circumstances
- Criterion (x) – be constructed and operated using a minimum amount of non-renewable resources, using energy efficiently such as from decentralised and renewable low carbon sources – paragraph 9.31 on Policy CS22
- Criterion (xii) – do not create an unacceptable level of risk – paragraph 11.25 on flood risk
- Criterion (xiii) – conserve or enhance the historic environment – Section 13 consideration of public benefits and less than substantial harm to heritage assets
- Criterion (xiv) – avoiding development in the floodplain unless the sequential and exception tests have been met and flood prevention/mitigation measures are in place – paragraph 11.25 on flood risk
- Criterion (xv) – incorporate the use of SUDS – paragraph 11.25 on flood risk
- Criterion (xvi) – ensure that pollutants are minimised – Statement of Common Ground on agreed matter of Risks of Pollution

Policy SP1 conclusions

- 9.4. Having regard to the above criteria, I am of the opinion that the Proposed Development complies with **Policy SP1**, save for criterion (vii) which stipulates avoiding inappropriate development in the Green Belt. However, I am further of the opinion that, when having regard to the more detailed policies on this matter as set out in Policy CS13 and SADM26, these Green Belt policy requirements can be satisfied given the specific proposal in the Proposed Development.

Policy SP2

- 9.5. **Policy SP2** on 'Presumption in favour of Sustainable Development' sets out that the Council will take a positive approach towards considering development proposals.
- 9.6. I note that this was the approach that was followed by the LPA Planning Officers when considering this planning application and in formulating their advice and recommendation that the Proposed Development should be granted planning permission.

Policy SP2 conclusions

- 9.7. Having regard to the above considerations, I am of the opinion that the Proposed Development complies with **Policy SP2**.

Policy CS12

- 9.8. Policy **CS12** on 'The Enhancement of the Natural Environment' requires that all development proposals must conserve and enhance the natural environment of the Borough.
- 9.9. I am of the opinion that the Proposed Development will secure these objectives, for the following reasons.
- 9.10. First, the Proposed Development will result in the retention of all existing trees and existing hedgerows.
- 9.11. Second, there will be new trees planted in the two proposed new parkland area and in the proposed orchard. Gaps in existing hedgerows are to be filled by further planting, and new hedgerows are to be planted.
- 9.12. Third, as a result, there will be a substantial net gain in biodiversity on the site of 90% in terms of habitat improvement and 25% in terms of hedgerow improvements (*Biodiversity Metric 3.0 Report, 14th February 2022*). These gains are considerably in excess of the 10% biodiversity net gain which is sought in the Environment Act 2021.
- 9.13. Fourth, I note that the site is not located on Best & Most Versatile Agricultural Land, having been assessed as Grade 3b (*Core Document CD-PA14a, paragraph 3.6.2*). Further, this conclusion was peer reviewed on behalf of the LPA by their own expert consultant, and the Committee Report (*Core Document CD-PA27, paragraph 10.33, page 63-64*) concurs that the land is indeed of non-BMV Grade 3b.
- 9.14. Whilst Mr Kratt accepts that there will be significant impacts on the landscape character within the Appeal Site until the planting matures, he also notes that the nature of solar farm development means that existing landscape features within them, such as trees, hedgerows, watercourses and

ponds can be retained with little to no impact to them and they are entirely reversible. Further, the proposed management regime will manage these features more sensitively than at present⁷.

- 9.15. Furthermore, there is a substantial positive legacy of the permanent retention of a number of landscape and ecological benefits of the scheme which will endure beyond decommissioning of the solar farm (retention of all hedgerows and trees mitigation planting, recreation of a parkland-like landscape, and retention of the new orchard). Given that, as Mr Kratt concludes, they will leave the landscape, post decommissioning, in a better condition than at present⁸, I conclude that **Policy CS12** will be met with regard to landscape character.

Policy CS12 conclusions

- 9.16. Based on the foregoing, I am of the opinion that the Proposed Development complies with, and derives support from, **Policy CS12**.

Policy CS13

- 9.17. **Policy CS13** 'Green Belt' states that there is a general presumption against inappropriate development in the Green Belt, as defined on the Proposals Map, and such development will not be permitted unless very special circumstances exist.
- 9.18. I will establish that the limited extent of harm to openness, and 'other harms', are to be weighed in the very special circumstances Green Belt test, which I apply at Section 13 of my Evidence.

Policy CS13 conclusions

- 9.19. Based on the consideration of very special circumstances which I undertake at Section 13 of my evidence, I am of the opinion that the Proposed Development complies with **Policy CS13**.

Policy CS14

- 9.20. **Policy CS14** 'Protection or Enhancement of Heritage Assets' requires that all development proposals must conserve or enhance the historic environment of the Borough.
- 9.21. I note that **Policy CS14** does not incorporate a balancing of the public benefits to weigh against any identified harm, and as such is in conflict with subsequent national planning policy as set out in the NPPF (2021) at paragraph 202.
- 9.22. I have already explained that Mrs Stoten in her evidence accepts that there will be less than substantial harm to three heritage assets, albeit at the low end of the spectrum in each case. This identified harm needs to be balanced against the public benefits of the scheme as NPPF paragraph 202 requires, although **Policy CS14** as adopted does not expressly make provision for that test.

Policy CS14 conclusions

⁷ Mr Kratt, paragraph 7.2.6

⁸ Op cit, paragraph 7.2.8

9.23. Based on the above considerations, I am of the opinion that whilst the Proposed Development does not comply with Policy CS14, the policy as drafted does not contain the public benefits balance test for less than substantial harm which is established in the NPPF.

Policy CS17

9.24. **Policy CS17** 'Energy and CO2 reductions' is particularly relevant to the Proposed Development with regard to the last section of the Policy which establishes a permissive approach toward new development of sources of renewable energy.

9.25. There are three caveats set out to this permissive approach which are listed at the end of the Policy.

9.26. The first concerns local designated environmental assets and constraints, important landscape features and significant local biodiversity. For the reasons I have already set out earlier in my Evidence in respect of **Policy CS12**, I consider this caveat is complied with.

9.27. The second concerns minimising any detriment to the amenity of neighbouring residents and land uses. I consider that this requirement has been fulfilled through the careful design of the Proposed Development.

9.28. The third concerns meeting high standards of sustainable design and construction. The Proposed Development achieves this through the deployment of renewable energy infrastructure, but also in a manner which allows for very significant improvements in biodiversity on the Appeal Site.

Policy CS17 conclusions

9.29. Based on the above considerations, I am of the opinion that the Proposed Development complies with and draws support from **Policy CS17**.

Policy CS22

9.30. **Policy CS22** 'Securing a high quality and accessible environment' requires all development to be of high quality design. It further states that development proposals should take advantage of opportunities to improve the character and quality of an area and conserve the Borough's historic environment.

9.31. Mr Kratt in his evidence at Section 6 explains the design evolution and mitigation of the Proposed Development. He draws attention to six main elements of the landscape strategy which are embedded into the Proposed Development, and to the proposed habitat improvements that respond to the characteristics and opportunities of the various component areas of the Appeal Site⁹.

Policy CS22 conclusions

9.32. Given the design approach adopted in formulating the Proposed Development as noted in Mr Kratt's evidence, I am of the opinion that the Proposed Development complies with **Policy CS22**.

⁹ Mr Kratt, paragraph 6.1.6



Site Allocation and Development Management Plan Document 2016

Policy SADM11

- 9.33. **Policy SADM11** relates to 'Landscape Character' and states that development will be managed to help conserve and/or restore the character of the wider landscape across the Borough. Individual proposals will be assessed for their impact on landscape features to ensure they conserve or improve the prevailing landscape quality, character and condition.
- 9.34. For the reasons that I have explained when considering **Policy CS12** earlier in my evidence, I consider that the requirements of the Policy have been achieved.

Policy SADM11 conclusions

- 9.35. Having regard to the above criteria, I am of the opinion that the Proposed Development complies with **Policy SADM11**.

Policy SADM22

- 9.36. **Policy SADM22** relates to defining the boundary of the 'Green Belt boundary'. It establishes the boundaries within which subsequent Green Belt **Policy SADM26** would apply.
- 9.37. I accept that the Appeal Site lies within the area defined by **Policy SADM22**.

Policy SADM22 Conclusions

- 9.38. Having regard to the limited scope of this Policy's requirements of itself, I am of the opinion that the Proposed Development would not offend **Policy SADM22**.

Policy SADM26

- 9.39. **Policy SADM26** relates to 'Development Standards in the Green Belt'. The explanatory text at paragraph 4.97 sets the context for Policy SADM26 in that it states that residents and businesses may wish to make changes to buildings and sites within the Green Belt, and that this policy will be used to control the impact of development – i.e. buildings, extensions, additions, works and uses – and ensure that it is appropriate in its surroundings.
- 9.40. **Policy SADM26** notes that all applications for development in the Green Belt will be assessed in accordance with **Policy CS13**. I have already established in reviewing my interpretation of **Policy CS13** that the application of very special circumstances is to be considered in Section 13 of my evidence.
- 9.41. Seven principles are then set out in **Policy SADM26** as follows:
- 9.42. Criterion (i) requires developments to be located as unobtrusively as possible and advantage should be taken of site contours and landscape features in order to minimise visual impact. This approach has been adopted by the Appellant as I explained when considering **Policy CS12** and Mr

Kratt in his evidence at Section 6 how the landscape features has influenced the design of the Proposed Development.

- 9.43. I further note that the requirement of this criterion is to 'minimise' any such visual impact, which I consider to the case.
- 9.44. Criterion (ii) states that buildings should be grouped together and that isolated buildings in the countryside should be avoided. The form and location of the limited number of buildings/structures proposed extend to inverter/transformer stations and battery storage containers, which are located in order to meet the functional requirements of electricity generation.
- 9.45. Criterion (iii) requires that existing open and green space in the area should be retained. Of the Appeal Site area of 130.6 ha, some 45 hectares is being retained as green space with significantly improved ecological value for the duration of the operational of the Proposed Development, and then permanently afterwards as a result of the ongoing legacy of the development. This principle is therefore incorporated within the layout of the scheme so far as is practical.
- 9.46. Criterion (iv) states that the scale, height and bulk of development should be sympathetic to, and compatible with, its landscape setting and not be harmful to the openness of the Green Belt. I have already examined the impact on the openness of the Green Belt in Section 8 of my evidence, where I conclude that there would be some harm to the visual and spatial openness of the Green Belt, but that this harm would be fully reversible upon the decommissioning of the solar farm.
- 9.47. Criterion (v) states that where modern materials are acceptable, they should be unobtrusive. The materials proposed for the various built elements are influenced to a significant degree by their functional requirements for appropriately generating and distributing electricity, and as also explained, the layout has been designed to respect the landscape character of the area and sub-areas of the individual land parcels. As Mr Kratt notes in his evidence, the extent to which built development is apparent in the landscape is limited by virtue of the nature of the type of development itself, comprising predominantly low lying solar panels and fencing, and by the character of the existing landscape limiting the visibility of the Proposed Development within the site due to its topography and vegetation¹⁰.
- 9.48. Criterion (vi) requires that existing trees, hedgerows and other features of landscape and ecological interest should be retained and enhanced in order to enrich the character and extent of woodland in the Community Forest. This principle has been incorporated into the design of the Proposed Development, with existing trees and hedgerows retained, and substantial areas of new hedgerows and tree planting introduced.
- 9.49. Criterion (vii) states that the viability and management of agricultural sites should not be undermined, there also being a strong presumption against development which would fragment a farm holding. The Proposed Development would benefit the quality of the soil underneath the panels by resting the soil from more intensive farming techniques, and there is the potential for grazing of areas of the site by sheep which would maintain an agricultural use of the site. The Proposed Development would not materially fragment the existing farm operation which would continue with the Proposed Development in operation for the proposed 35 year period, and the

¹⁰ Mr Kratt, paragraph 7.3.8



revenue generated by the Proposed Development through diversification of income would further assist the Estate in improving existing farm practices and land management.

Policy SADM26 Conclusions

- 9.50. Having regard to the above criteria, I am of the opinion that the Proposed Development complies with **Policy SADM26** with the exception of no harmful impact on the openness of the Green Belt. To the extent that there is harm in this respect, this is a matter which I consider later in my Evidence as to whether there are Very Special Circumstances as allowed for in national planning policy, and in Policy CS13 in Section 13 of my evidence.

Policy SADM29

- 9.51. **Policy SADM29** relates to 'Heritage Assets' and requires planning applications to be considered in accordance with the NPPF. When assessing proposals, the policy states it will have regard to the significance of the heritage asset and the potential harm to it, and development proposals will not be permitted which fail to protect, conserve or where possible enhance the significance, character and appearance of the heritage asset and its setting. Specifically with regards to listed buildings, the Council will not permit proposals which would materially harm the setting of a listed building.
- 9.52. I have already noted when considering **Policy CS14** that the Core Strategy policy did not incorporate a balancing of the public benefits to weigh against any identified harm, and as such is in conflict with subsequent national planning policy as set out in the NPPF (2021) at paragraph 202. However, through its recognition of the need to accord with the NPPF, the incorporation of a public benefits balancing test would apply to a consideration of **Policy SADM29**.
- 9.53. I have already explained that Mrs Stoten in her evidence accepts that there will be less than substantial harm to three heritage assets, albeit at the low end of the spectrum in each case. This identified harm needs to be balanced against the public benefits of the scheme as NPPF paragraph 202 requires, which **Policy SADM29** allows for at the start of the wording of the policy.

Policy SADM29 conclusions

- 9.54. I am mindful that **Policy SADM29**, through its recognition of applications being determined in accordance with the NPPF, does therefore implicitly allow for the NPPF public benefits test to be applied as allowed for in the NPPF in circumstances where there is less than substantial harm to a heritage asset. For the reasons I elaborate on later in my evidence in Section 13, I consider that there are public benefits which outweigh this limited degree of 'less than substantial harm' and therefore the correct national policy position as set out in the NPPF is complied with.

Policy SADM30

- 9.55. **Policy SADM30** establishes 'Design Principles' and sets out a permissive framework whereby development will be permitted provided a number of criteria are met.
- 9.56. Criterion (i) requires that development should make a positive contribution to the built and natural environment. Whilst the design of the solar farm components of the Proposed Development are led by their functional electricity generation requirements, the Proposed Development does incorporate substantial areas of green space which will benefit the natural environment through new planting and areas of habitat creation.

- 9.57. Criterion (ii) requires development to recognise and complement the particular local character of the area in which it is located, and which in turn through Criterion (iii) results in high quality design.
- 9.58. I have already explained when considering **Policy SADM26** that the design of the Solar Farm has been carefully designed to respond to local topography, retention and enhancement of landscape fabric, and respecting the setting of heritage assets, I consider that this requirement has been achieved and that the solar farm given its functional characteristics, does represent a high quality design.
- 9.59. **Policy SADM30** then proceeds to set out a further 2 criteria in order to demonstrate a high quality design.
- 9.60. The first is that the development must respect, enhance or improve the visual amenity of the area by virtue of its scale, mass, bulk, height and urban form. Again, I consider that this requirement has been fulfilled so far as possible given the functional requirements of a Solar Farm and the incorporation of a strong landscape framework to frame the proposed solar development.
- 9.61. The second is that development must have limited impact on the amenity of occupiers of the site, its neighbours and its surroundings in terms of outlook, privacy, light, nuisance and pollution.
- 9.62. I note that there are no occupiers of the Appeal Site. In terms of neighbours, there would be no loss of privacy given the site will largely be unmanned once operational (other than for occasional maintenance visits), nor would there be any material nuisance or pollution arising from glint and glare or noise. I return to those matters when addressing Rule 6 party matters in Section 11 of my Evidence.
- 9.63. **Policy SADM30** then proceeds to set out further criteria for major development proposals and advertisements, neither of which I consider are directly material to assessing the Proposed Development.

Policy SADM30 Conclusions

Having regard to the above criteria, I am of the opinion that the Proposed Development complies with **Policy SADM30**.

Planning Policy Conclusions

- 9.64. Having regard to the above considerations, and also relying upon the balance undertaken in Section 13 of my evidence to demonstrate (a) very special circumstances in terms of Green Belt policy, and (b) the less than substantial harm to heritage assets is outweighed by the public benefits, it is my opinion that the Proposed Development complies with the Development Plan policies cited by the LPA in their Reasons for Refusal. Even if there were to be a conflict with part of a policy, or even one policy in the Development Plan, this conflict would not automatically lead to the conclusion that there is conflict with the development plan taken as a whole having regard to the principles set out in **R. (on the application of William Corbett) v The Cornwall Council** [2020] EWCA Civ 508 (*Core Document CD-ADAP7*).

10. Material Policy Considerations and Appeal Decisions

10.1. In this section of my Evidence, I turn to consider the matter of other material planning considerations.

Energy Policy Considerations

10.2. This section provides a summary of the most relevant energy legislation, policy and guidance for this Appeal.

UK Legislation and Policy

10.3. The 'Climate Change Act 2008' (*Core Document CD-NPP2*) brought in the legislative basis for the United Kingdom (UK) to reduce net greenhouse gas emissions by at least 80% by 2050 from their 1990 levels.

10.4. The target included in the 'Climate Change Act 2008' was strengthened in June 2019 to be a 100% reduction relative to 1990 levels by 2050 (known as "net zero") (*Core Document CD-NPP3*).

10.5. The 'Clean Growth Strategy' (*Core Document CD-NPP29*) was published by the Department for Business, Energy and Industrial Strategy (BEIS) in October 2017. In respect of the power sector, the Strategy anticipates that by 2050 emissions from this sector need to be close to zero. In the meantime, the Strategy indicates one possible pathway to the interim step of 2032 is for power emissions to fall by 80% compared to 2017 levels which could be achieved by, inter alia, growing low carbon sources such as renewables and nuclear to over 80% of electricity generation, and phasing out unabated coal power. The Strategy also confirms that the "Government want to see more people investing in solar without government support". Attention is drawn in particular to pages 95 – 96 of the Strategy.

10.6. The clear and explicit need to introduce a step change in how the UK reacts to Climate Change has been recognised by UK Parliament who, on 1st May 2019, declared an Environmental and Climate Change Emergency (*Core Document CD-NPP27*).

10.7. More recently, the Government published the Energy White Paper: Powering our Net Zero Future in December 2020 (*Core Document CD-NPP7*). In the foreword to the White Paper, the Minister stated:

"The UK has set a world-leading net zero target, the first major economy to do so, but simply setting the target is not enough – we need to achieve it. Failing to act will result in natural catastrophes and changing weather patterns, as well as significant economic damage, supply chain disruption and displacement of populations."

10.8. And later in the forward:

"The way we produce and use energy is therefore at the heart of this. Our success will rest on a decisive shift away from fossil fuels to using clean energy for heat and industrial processes, as much as for electricity generation."

10.9. The White Paper recognises the progress made to increase deployment of renewables and sees the expansion of renewable technologies as a key contributor to achieving an affordable clean electricity system by 2050. The White Paper at page 45 states:

"Onshore wind and solar will be key building blocks of the future generation mix, along with offshore wind. We will need sustained growth in the capacity of these sectors in the next decade to ensure that we are on a pathway that allows us to meet net zero emissions in all demand scenarios."

HBC Climate Change Emergency & Policies

10.10. At the local level, HBC has joined many other local authorities and also declared a Climate Emergency in September 2019 (*Core Document CD-HSPD2*) and is committed to achieving carbon neutrality as soon as possible and no later than 2050. HBC's strategy and action plan for how the Council will achieve net zero carbon emissions was approved by Full Council in October 2020.

10.11. HBC's Climate Change and Sustainability Strategy v.1.4, dated 26th June 2020, stated that:

"In order to reach carbon neutrality by 2050 for its own operations, as well as influencing the emissions of other individuals and organisations, Hertsmere will need to take ambitious actions." (page 4)

10.12. The Strategy also sets out the significance of shifting the source of energy consumption towards renewable sources, such as solar:

"a major aspect of reducing emissions from energy consumption is to shift the source of energy consumed from fossil fuels to renewable sources, such as wind and solar."(page 4)

10.13. Page 7 of the Strategy explains that Hertsmere's generation of renewable energy is significantly below national levels:

"the total renewable electricity generated in Hertsmere in 2018 was reported to be 24.74GWh. The total electricity consumption of Hertsmere in 2018 was 455GWh. Thus, renewable energy produced within Hertsmere meets approximately 5.4% of the electricity consumed, which is significantly below the national levels. Nationally, 33% of electricity generated comes from renewable sources of energy including wind, solar, bioenergy, hydro, tidal and others." (page 7)

10.14. HBC therefore concluded that:

"In order to meet the energy needs and our net zero emissions commitment before 2050, a significant amount of renewable energy capacity will need to be deployed within Hertsmere" (page 7, (underlining is my emphasis)).

10.15. HBC further set a specific goal, no.2, in its Climate Change Action Plan that it should 'reduce reliance on fossil fuels and reduce emissions by increasing renewable energy capacity'.

Progress

- 10.16. The 'Digest of United Kingdom Energy Statistics' is an accurate source of energy information providing figures on the UK's overall energy performance, production and consumption. The Digest is published annually with the latest July 2022 Digest (*Core Document CD-NPP28*) noting that the UK's generation was principally derived from fossil fuels in 2021 with the proportion of renewable sources falling over the previous year. It should be noted that fossil fuel generation amounted to 42.6% of the UK's generation in 2021, having increased by 11% over the previous year. Given the challenges arising from forecast increased demand for electricity over the next decade and beyond that I discuss below, I note with concern that the that the UK's overall electricity generation fell to a record low of 308.7TWh in 2021, 1.2 % less than had been generated in 2020 (*Core Document CD-NPP28, page 28*).
- 10.17. The National Audit Office has recently cast doubt on the progress being made and the achievement of the pre-"net zero" (80%) reduction compared to 1990 levels in their December 2020 'Achieving net zero' report (*Core Document CD-NPP30*). In the summary at page 6, when discussing the scale of the challenge, the NAO noted that achieving net zero is a 'colossal challenge' and is significantly more challenging than the Government's previous target to reduce carbon emissions by 80% by 2050.
- 10.18. The report recognised the progress of the energy sector, but confirms this sector's importance in achieving legislative targets:
- "Reducing emissions further to achieve net zero will require wide-ranging changes to the UK economy, including further investment in renewable electricity generation, as well as changing the way people travel, how land is used and how buildings are heated."**
- 10.19. In April 2021, the UK Government committed to set in law by the end of June 2021 the world's most ambitious climate change target, cutting emissions by 78% by 2035 compared to 1990 levels.
- 10.20. Even since the appeal was submitted in July 2021, carbon reduction policy development continues unabated. The Government published its '**Net Zero Strategy: Build Back Greener**' (*Core Document CD-NPP8*) in October 2021 which establishes that the UK will be powered entirely by clean energy by 2035, subject to security of supply (*Core Document CD-NPP8, first bullet point, page 19*).
- 10.21. Specifically in respect of the 'Power' sector, the Net Zero Strategy affirms that one of the Government's key commitments is to accelerate the deployment of low cost renewable generation, such as wind and solar (*Core Document CD-NPP8, second bullet point, page 94*). The Government identifies the Contracts for Difference funding route is being reviewed, given that this is a support mechanism it can directly lead on, but I note that schemes such as the appeal scheme are self-funded and therefore do not rely on Government support through initiatives such as the CfD auctions.
- 10.22. Another of the key commitments is '*to ensure the planning system can support the deployment of low carbon energy infrastructure*'.
- 10.23. I share the opinion of the National Audit Office that the challenge presented here is colossal. On the one hand, the Government requires that by 2035 all our electricity will need to come from low carbon sources, subject to security of supply, bringing forward the government's commitment to a fully decarbonised power system by 15 years from the previous target of 2050 which was envisaged in the Energy White Paper only 10 months previously. On the other hand, the Government



is at the same time forecasting a 40–60% increase in demand over the same period (*Core Document CD–NPP8, paragraph 10, pg 98*).

- 10.24. To meet this challenge, the Government states that a low-cost, net zero consistent electricity system is most likely to be composed predominantly of wind and solar generation, whether in 2035 or 2050 (*Core Document CD–NPP8, paragraph 11, pg 98*). It affirms that we need to continue to drive rapid deployment of renewables so we can reach substantially greater capacity beyond 2030 (*Core Document CD–NPP8, paragraph 35, pg 103*). The Government further indicates that a sustained increase in the deployment of land-based renewables (and specifically identifying solar) will be required in the 2020s and beyond (*Core Document CD–NPP8, paragraph 36, pg 103*).
- 10.25. Given the size of the challenge, the Government states ‘*we will need to consider how low carbon energy infrastructure can be deployed at an unprecedented scale and pace sympathetically alongside the interests of our communities and consistent with our obligations to a sustainable environment, both land-based and marine.*’ (*Core Document CD–NPP8, paragraph 32, pg 102*). It is my opinion that, if consented, the Proposed Development will contribute to the deployment of low carbon energy infrastructure in the immediate future and therefore contributing to the scale and pace of deployment that is needed, whilst also being sympathetic to both the interests of the community and the sustainability of the environment in this location.
- 10.26. The government also sets out that “*although we need to ensure we can deploy existing low carbon generation technologies at close to their maximum to reach Carbon Budget 6, we also need to de-risk the delivery challenge*” (*Core Document CD–NPP8, paragraph 43, pg 105*). One of the solutions proposed is to maximise system flexibility through storage technologies. I note that the Proposed Development includes battery storage as an integral component of the scheme which will complement the Government’s net zero strategy.
- 10.27. Most recently, the Government updated its British Energy Security Strategy in April 2022 (*Core Document CD–NPP31*). When discussing solar technology, the Strategy notes that the government expects a five-fold increase from the current 14GW of solar capacity in the UK by 2035. Specifically in respect of ground-mounted solar, the Strategy explains that consultation on amending planning rules will take place to strengthen policy in favour of development of non-protected land, while ensuring communities continue to have a say and environmental protections remain in place.
- 10.28. The Government also states that it will support solar that is co-located with other functions, and I particularly note that that this reference specifically includes storage, so as to maximise the efficiency of land use, as is proposed in this scheme.

Summary

- 10.29. The above matters emphasise the immediate and pressing need for deployment of renewable energy generation in the UK, to assist with meeting the challenging legally binding obligations to reach “net zero” by 2050. It is clear that the continued deployment of Solar PV, and renewable energy technologies more generally, are recognised by the Government as a key part of the UK’s transition to achieving a low carbon economy and tackling Climate Change.
- 10.30. Having regard to the above, the application proposals make an appreciable contribution to meeting the amended Climate Change 2008 targets. It is clear that in order for the UK to meet the ambitious target of reducing greenhouse gas emissions by 100% or “net zero” compared to 1990 levels by 2050, a presumption in favour of increasing the number and output of low carbon energy sources, such as Solar Farms, is entirely appropriate and necessary.

- 10.31. The UK and HBC's 'Climate Emergency' declarations provide further context for this Appeal. The Proposed Development would support the intentions of this action and would substantially exceed the local commitment for the County of Devon to become carbon neutral by 2050.
- 10.32. The application of the Government's energy policy framework is a significant material consideration to this Appeal and is further considered in the balance of material considerations at Section 12 of my evidence.

National Policy Statements on Energy & Renewable Energy

National Planning Policy Framework

- 10.33. The latest version of the NPPF (*Core Document CD-NPP1*) was updated in July 2021.
- 10.34. It sets out the Government's planning policies for England and how these are expected to achieve sustainable development. I draw attention to the following key paragraphs in relation to the determination of this appeal.
- 10.35. First, I note that Paragraph 152 of the NPPF states that the planning system should support the transition to a low carbon future in a changing climate, and take full account of flood risk. It also states *inter alia* that renewable and low carbon energy and associated infrastructure should be supported.
- 10.36. Second, paragraph 158 explains that applicants are not required to demonstrate the overall need for renewable or low carbon energy, and recognises that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. I am of the opinion that this Proposed Development would make a significant contribution to cutting greenhouse gas emissions.
- 10.37. Paragraph 158 further requires that Local Planning Authorities should approve the application if its impacts are (or can be made) acceptable. For the reasons I elaborate in section 12 of my evidence, I am of the opinion that the impacts arising from the Proposed Development are acceptable with the imposition of suitable planning conditions. The only remaining impacts once the scheme is decommissioned will be overwhelmingly positive.
- 10.38. Further advice is set out in the NPPF regarding conserving and enhancing the natural environment and the heritage environment which I also refer to in reaching an overall planning balance in Section 13.

National Planning Practice Guidance (NPPG) (first published March 2014)

- 10.39. The Government's web-based NPPG went live in March 2014 (*Core Document CD-NPP4*) and contains guidance on the planning system and has been subject to updating periodically. The web-based guidance should be read alongside the NPPF and is a material consideration in the consideration of planning applications.
- 10.40. One of the sections NPPG concerns "Why is planning for renewable and low carbon energy important?", which makes it clear that delivering more renewable energy schemes is a target of the planning system. It states:

"Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses.

Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.

Paragraph: 001 Reference ID: 5-001-20140306

- 10.41. Renewable and Low Carbon Energy forms one of the chapters in the NPPG. Paragraph 013 (ID: 5-013-20150327) is entitled “What are the particular planning considerations that relate to large scale ground-mounted solar photovoltaic farms?”. I have taken these into account as relevant in my Evidence as the specific consideration arises.
- 10.42. I am of the opinion that the above considerations are satisfactorily addressed for the reasons set out elsewhere in my evidence as noted above.

Overarching National Policy Statement for Energy (EN-1) (July 2011)

- 10.43. EN-1 (Core Document CD-NPP25) was published in July 2011 to set out national policy for energy infrastructure in the UK. Its primary purpose is to be applied to decisions for Nationally Significant Infrastructure Projects, which the Proposed Development the subject of this appeal is not, although it is of a scale which is approaching the NSIP threshold. Having regard to paragraph 1.2.1 of the NPS I am of the opinion that this document (and also NPS EN-3 considered below) should be a material consideration in the determination of this appeal.
- 10.44. Paragraph 3.4.1 sets out the UK commitments to sourcing 15% of energy from renewable sources by 2020. To hit this target, and to largely decarbonise the power sector by 2030, EN-1 states that:

“It is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable energy electricity generation projects is therefore urgent.”

- 10.45. The National Policy Statement sets out how the energy sector can help deliver the Government’s climate change objectives by clearly setting out the need for new low carbon energy infrastructure to contribute to climate change mitigation.
- 10.46. A Draft of NPS EN-1 (Core Document CD-NPP17) was published in September 2021. I note that it specifically considers the implications of meeting net zero at Section 2.3 (Core Document CD-NPP17, page 16) and explains that the Government’s objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable and consistent with meeting our target to cut GHG emission to net zero by 2050. It states that ‘This will require a step change in the decarbonisation of our energy system’. (Core Document CD-NPP17, paragraph 2.3.2)
- 10.47. It further notes that the sources of energy we use will need to change, as fossil fuels still accounted for just over 79% of our energy supply in 2019. It continues ‘we will need to dramatically increase the volume of energy supplied from low carbon sources and reduce the amount provided by fossil fuels’. (Core Document CD-NPP17, paragraph 2.3.4) In my opinion, this statement again reinforces the messages from the plethora of recent government announcements that there is a need to substantially increase low carbon energy generation beyond current rates of deployment. The Proposed Development would make a meaningful and material contribution.
- 10.48. Indeed, the NPS continues to explain the ‘urgent need for new generating capacity’ (Core Document CD-NPP17, page 28), that wind and solar are the lowest cost ways of generating electricity, and that the government’s ‘... analysis shows that a secure, reliable, affordable, net zero consistent system

in 2050 is likely to be composed predominantly of wind and solar' (Core Document CD-NPP17, paragraph 3.3.21).

National Policy Statement for Renewable Energy Infrastructure (EN-3) (July 2011)

- 10.49. EN-3 (Core Document CD-NPP26) was also published in July 2011 and sets out the national policy for renewable energy projects. EN-3 should be read in conjunction with EN-1. 4.53 Similar to EN-1, EN-3 sets out the importance of renewable energy in achieving the Government's ambitious targets for renewable energy generation, highlighting that a *"significant increase in generation from large-scale renewable energy infrastructure is necessary to meet the 15% renewable energy target"*.
- 10.50. A draft of NPS EN-3 (Core Document CD-NPP18) was also published in September 2021. It is again noted that this is a draft document, the contents of which are subject to change, however, it is considered that the guidance set out in this document should be afforded appropriate weight as the latest statement of Government planning policy on solar farms.
- 10.51. This document confirms that the Government is committed to sustained growth in solar capacity to ensure that we are on a pathway that allows us to meet net zero emissions. I note that the government affirms that *'as such solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector.'* (Core Document CD-NPP18, paragraph 2.47.1). Given that this statement is entirely consistent with the subsequent publication in October 2021 of the Net Zero Strategy, I am of the opinion that these draft policy statements should be afforded significant weight in this appeal.
- 10.52. It then explains a number of key considerations involved in the siting of a solar farm, and also technical considerations for the Secretary of State to consider. I have taken these considerations into account as relevant in my Evidence as the specific consideration arises.
- 10.53. I draw particular attention to the inclusion of the consideration of the time-limited effects of a solar scheme. The draft NPS states at paragraph 2.49.13 that where a time-limit is sought by an applicant as a condition of consent, *'... it is likely to be an important consideration for the Secretary of State when assessing impacts such as landscape and visual effects and potential effects on the settings of heritage assets'*. The paragraph continues that *'Such judgements should include consideration of the period of time sought by the applicants for the generating station to operate. The extent to which the site will return to its original state may also be a relevant consideration'*. Given the time limited extent of 35 years that is being sought, and the decommissioning of the solar farm beyond that time with a legacy of new hedgerow, tree and wildflower meadows enduring as a legacy of the Proposed Development, this will enhance the landscape character in the long-term, are matters that should be given significant weight.
- 10.54. I note that there is a further reference to the consideration of the time-limited nature of solar farms repeated within paragraph 2.53.8, when discussing impacts from solar photovoltaic generation on cultural heritage.

Appeal Decisions

Land North of Halloughton, Southwell, Nottinghamshire (Appeal Reference: APP/B3030/W/21/3279533)

- 10.55. An appeal concerning Land North of Halloughton, Southwell, Nottinghamshire was allowed by Inspector Baird in February 2022, for a 49.9MW solar farm and battery stations, together with all associated works, equipment and necessary infrastructure (Core Document CD-ADAP8).

10.56. Inspector Baird set out three key issues in Paragraph 5 of the decision, relating to the landscape and visual impact of the scheme; the effect on heritage assets; and thirdly whether the proposed development would conflict with the Development Plan.

10.57. With regards to agricultural land quality, Inspector Baird recognised that the Appellant demonstrated that the land was not considered to be Best and Most Versatile Agricultural Land, and that only a small proportion of the land would be permanently lost from agricultural use.

10.58. In terms of landscape and visual impact, Inspector Baird acknowledges that given the nature and scale of large-scale solar farms, it is inevitable that they may result in landscape harm (Paragraph 11), but that did not mean the scheme was unacceptable. When assessing the visual impacts during construction in Paragraph 22, Inspector Baird stated:

“During the construction period and at Year 1, it is agreed that within the site, the scale of effect would be Major and have a Significant adverse effect on landscape character. In my view, this significant adverse effect would be experienced at several places where there are views into the site. However, given the relatively short construction period, some 26 weeks, and at a time when the mitigation planting would be young, such adverse impacts cannot be avoided. Thus, the weight I attach to these early effects is limited. As François Athenase de Charette de la Contrie¹ is reputed to have said, “...you cannot make an omelette without breaking a few eggs.”

10.59. In Paragraphs 73 – 78, Inspector Baird conducts the planning balance. I draw the Inspector’s attention to the following extracts:

“74. Both national and development plan policy recognise that large scale solar farms may result in some landscape and visual impact harm. However, both adopt a positive approach indicating that development can be approved where the harm is outweighed by the benefits. This is a planning judgement. Here, through a combination of topography, existing screening and landscape mitigation, the adverse effect on landscape character and visual impact would be limited and highly localised. Moreover, as the existing and proposed planting matures, adverse effects, would be progressively mitigated and once decommissioned there would be no residual adverse landscape effects. Rather the scheme would leave an enhanced landscape consistent with the objectives of development plan policy and the SPD. In these circumstances, whilst there would be some localised harm to landscape character and some visual harm in conflict with the relevant development plan policies, the imperative to tackle climate change, as recognised in legislation and energy policy, and the very significant benefits of the scheme clearly and decisively outweigh the limited harm.”

10.60. In terms of heritage assets, Inspector Baird stated the following:

“77. The proposal would result in less than substantial harm at the lower/lowest end of that spectrum to the heritage significance of several HAs albeit that harm would be temporary until the solar farm was decommissioned. In relation to the CA as a whole, the proposal would, on balance, preserve its character and appearance. In this context, recognising the great weight that is required to be attached to the conservation of a HA, I consider the imperative to tackle climate change, as recognised in legislation and energy policy, and the very significant benefits of the scheme clearly and decisively outweigh the temporary and less than substantial harm to the HAs involved.” (my emphasis added)

- 10.61. Accordingly, in Paragraph 78 Inspector Baird concludes that the proposal would make a material and early contribution to the objective of achieving the decarbonisation of energy production and would not conflict with local and national policy.
- 10.62. In my opinion, the decision of Inspector Baird is clear, demonstrating the strength and weight presently being afforded to addressing climate change. The decision is clear that where the significant benefits outweigh the harms of the proposed development (in that case, very localised effects on the landscape and less than substantial harm to the heritage assets), consent should be granted. The decision also emphasises both how the effects are temporary in nature and would be reversible at the end of the 35-year period, but also how the mitigation planting would result in an enhanced landscape after the lifetime of the temporary planning permission.

Cleve Hill

- 10.63. I turn to consider some of the implications of the recent Secretary of State decision to make a Development Consent Order for the Cleve Hill solar and battery storage scheme (*Core Document CD- ADAP9*). Whilst the Cleve Hill project was a Nationally Significant Infrastructure Project (NSIP) by reason of the fact that it exceeded the 50MW threshold for being determined under these Regulations, nevertheless the rationale and application of the National Policy Statements policy remains highly relevant in my opinion to this appeal given its similarity of function and that it is on the cusp on the NSIP 50MW threshold. I therefore comment here in more general terms in connection with the application of a planning balance and the respective weight applied by the Secretary of State to different material considerations.
- 10.64. The Secretary of State considered that there was a strong case in favour of granting development consent for the proposed Development. National Policy Statement EN-1 gave support to renewable electricity generating nationally significant infrastructure projects which the Secretary of State decided was *‘relevant and important to the consideration of the Application’*.
- 10.65. He acknowledged that this support must however be considered in the planning balance. In addition, the Secretary of State applied substantial weight to the contribution to meeting the need for renewable energy infrastructure given by the proposed solar farm element of the Proposed Development on its own account and the further weight in favour of the proposed development’s battery storage facility. He further noted that the Development would, in addition to meeting demand for electricity, also do so in a way which would be consistent with the Climate Change Act 2008 (2050 Target Amendment) Order 2019 which amended the Climate Change Act 2008 to set a legally binding target of a 100% reduction in greenhouse gas emissions (compared to 1990 levels) in the United Kingdom.

10.66. The Secretary of State also accepted there are a number of adverse effects also identified in respect of landscape, visual, recreational, and cultural heritage impacts, and limited weight to temporary transport and traffic impacts. In addition, local residents and some local organisations had raised various concerns, including about the proposed battery storage facilities citing the risk of fire, explosion and the release of poisonous gases and the impacts on amenity, wildlife and general well-being.

10.67. The Cleve Hill scheme was identified as having the potential to cause adverse effects and less than substantial harm to the significance of a number of heritage assets, including listed buildings and a Conservation Area. The Examining Authority concluded that the scheme would not preserve those elements of setting which make a positive contribution to significance. However, when considering the planning balance, the Examining Authority (*Core Document CD-ADAP10*) concluded at paragraph 10.3.9 of the report:

“We conclude that none of the matters telling against the development, either in isolation or in combination, irrespective of whether the Proposed Development takes the form of a solar PV array and energy storage system, or whether the energy storage system is omitted in favour of an extension to the array, outweigh the significant benefits that we have described.”

10.68. In the Overall Conclusion for the Case for Development at Section 10.4, the Examining Authority concluded:

“In our judgement, the local, national and global benefits to be gained from the Proposed Development in terms of its contribution to decarbonising electricity generation and addressing climate change are such that they outweigh the adverse impacts that are identified above in relation to the construction, operation and decommissioning of the Proposed Development.”

10.69. In my opinion the decision is clear, that even where adverse effects of a much greater scale than those arising from the Proposed Development have been identified to designated heritage assets of the highest and less than highest significance in accordance with NPPF, this harm, which was less than substantial was outweighed by the clear and convincing benefits of the proposed solar scheme.

10.70. Of interest in the Cleve Hill Solar Park Examining Authority Report is also the reference at paragraph 10.3.10 to the time-limited duration of the scheme and the reversibility if identified adverse effects. This consideration of the time-limited duration of the scheme was clearly a factor in the decision to grant Development Consent. This approach is consistent with the subsequent publication by the Government of the draft NPS EN-3, as referred to earlier in my evidence.



11. Rule 6 Party Matters

11.1. It is noted that the two parties have been afforded Rule 6 status at this Inquiry.

Combined Objectors Group

11.2. A number of the matters raised by the Combined Objectors Group (COG) have already been considered and addressed in my Evidence in respect of inappropriate development in the Green Belt, and impact on heritage assets.

11.3. Specific further matters raised by APC in their Statement of Case to which I respond to below are:

- Adequacy of the noise report
- Loss of agricultural land

Aldenham Parish Council

11.4. Similarly, a number of the matters raised by Aldenham Parish Council (APC) have already been considered and addressed in my Evidence in respect of inappropriate development in the Green Belt, and impact on heritage assets.

11.5. Specific further matters raised by APC in their Statement of Case to which I respond to below are:

- Impact on PROWs, which Mr Kratt addresses in his evidence at his Section 7.5
- Impact on the rural economy
- Lack of consideration of alternative sites
- Impact on attractive open character, which Mr Kratt addresses in his evidence at his Section 7.7
- Impact on wildlife
- Impact on noise
- Impact on flooding

Noise considerations

11.6. The COG in their Statement of Case alleges that the noise report supporting the appeal is inadequate.

11.7. APC in their Statement of Case allege that noise could have a significant harmful impact on both walkers and wildlife; and express concern over the suitability of a proposed planning condition to prevent any audible noise.

11.8. A response to the matters raised by both Rule 6 Parties is set out by Mr Antony Best in the Inacoustic Noise technical letter dated 21st September 2022, which is attached at **Appendix 1** to my evidence.



Appendix 1 – Inacoustic Technical letter, 21st September 2022

- 11.9. On the basis of Mr Best’s conclusions, which I accept, I conclude that the acoustic information provided in support of the Proposed Development is acceptable and appropriate having regard to the appropriate standards for such studies and analysis.
- 11.10. Further, drawing upon Mr Best’s analysis, the impact of noise emissions from the central inverter/transformer stations on the amenity of users of the PRoW, whilst audible, would only be detectable for a few metres of walking along the PRoW and would not be overbearing or continuous.
- 11.11. Mr Best also concludes that the proposed noise condition would restrict noise at the nearest noise-sensitive receptors to at least 5dB below the prevailing background noise level, which Mr Best considers means that the Proposed Development would have low-to-no audibility at the residential receptors during all periods of the day when the solar farm would be operational. I therefore consider that the suggested planning condition in respect of limiting noise levels would be appropriate.

Agricultural Land and Rural Economy

- 11.12. The COG in their Statement of Case state that the national needs of food security require the best use of agricultural land, particularly where it occurs adjacent to urban and heavily populated areas; and that taking land out of food production is wasteful and unnecessary. They further state that significantly more investigation is necessary to ascertain that the majority of the land does not fall into a BMV category.
- 11.13. APC in their Statement of Case allege that this is an arable/crop displacement rather than a farm diversification scheme, and that the restoration of land to its former agricultural condition is to some extent at odds with requiring avoiding disturbing the biodiversity within the site, and that improvements to biodiversity and soil health could be achieved by other means.
- 11.14. With regard to the point made on farm diversification, I consider that the additional income generated by the Proposed Development will assist in securing the farm business and there is support in the NPPF (paragraph 84b) with regard to diversification of agriculture in connection with supporting a prosperous rural economy. In my opinion, diversification in this sense reflects the reduced dependence of farmers on agriculture as a source of income.
- 11.15. There is considerable debate in some quarters over the effect of solar farm development on agricultural and food production. Yet there is no policy that requires agricultural land to be used for agricultural production; nor any policy that seeks or requires agricultural land to be used intensively.
- 11.16. The Government’s Food Strategy was published in June 2022 (*Core Document reference being confirmed by LPA*). Paragraph 1.2.1 notes that the Sustainable Farming Incentive will incentivise farmers to improve soil quality and invest in hedgerows amongst other measures, whilst other schemes will support ambitious environmental targets to halt species decline, treble woodland creation and improve soil health. I consider that the proposed solar farm development can also assist in meeting these sustainable food production environmental objectives.
- 11.17. At paragraph 1.2.2, the Strategy explains that there are 9.2 million hectares of farmland in England but there is no direct correlation between the UK land area farmed and agricultural output, with 57% of agricultural output coming from just 33% of the farmed land area.
- 11.18. In respect of food production, paragraph 1.2.3 notes that



“...our aim is that farmers will broadly maintain domestic production at current levels as we deliver our climate and environmental goals”.

- 11.19. However, I note that there is no strategy set out for increasing domestic food production.
- 11.20. The scale of the Appeal Site also needs to be considered in the wider context of the quantity of national agricultural land which is available in the country (which as noted above is 9.2 million hectares). The Appeal Site extends to approximately 130 hectares (of which 63ha would remain undeveloped), a very small fraction indeed of the farmed area available across the country.
- 11.21. The Proposed Development involves the utilisation of poorer quality land (Grade 3b) which is not a category of BMV agricultural land.
- 11.22. In response to the alleged need for further soil investigation to confirm agricultural land quality, I refer to the Committee Report (*Core Document-PA27, paragraph 10.33*) which confirms that the LPA:

“... commissioned their own expert consultants, Soil Environment Services, to review the Agricultural Land Classification Report. Their conclusion was that they agreed that the land is indeed Grade 3b (i.e. it is not most best and most versatile agricultural land).”

- 11.23. Mr Askew also considers this matter and concludes that there is considerable evidence that agricultural land at the Appeal Site is classified as Subgrade 3b, not BMW, and more investigation would not change the grading.

Appendix 2– Askew land and soil technical letter, 21st September 2022

Flood risk and surface water drainage

- 11.24. APC in their Statement of Case allege that there is a lack of information in respect of this matter.
- 11.25. Mr Graham Eves of PFA Consulting has considered the points raised by RMA Environmental and he also further reviewed the objections of the Lead Local Flood Authority (“the LLFA”) and the objections of the APC who rely on the responses of the LLFA.
- 11.26. Mr Eves concludes that the submitted Flood Risk Assessment provides sufficient and up to date information to confirm that the development can take place without any unacceptable risk to the development itself or without increasing flood risk elsewhere, and further that providing the drainage requirements identified in the FRA are fully implemented, no other conditions or information should be necessary. Relying on this evidence, I therefore consider the Proposed Development is acceptable with regard to flood risk and surface water matters.

Appendix 3 – PFA Technical letter, 15th August 2022

Alternative sites consideration

- 11.27. APC raise objection on the grounds of lack of consideration of alternative sites that are not in the Green Belt, or to a smaller scheme that would have a less detrimental impact.
- 11.28. The Environmental Statement (the “ES”, *Core Document CD-PA7*) submitted alongside the planning application expressly consider alternative sites in Section 3.8.1. It explains that the location of the project is driven first and foremost by the need to be close to an available grid connection, and



that the Elstree Substation, located adjacent to the Appeal Site, has capacity and the Appellant has secured this via a Connection Agreement.

- 11.29. The analysis in the ES then explains why a 5km area of search from this Point of Connection was examined, how a site-sieving search was undertaken and the 8 criteria which were used to appraise potential sites. It is then noted that after these 8 'exclusionary criteria' had been applied, the Appellant then approached landowners to establish if a suitable site could be assembled into a commercially viable solar layout. The ES concludes by noting that out of this process, the Appeal Site was considered suitable and available and was then the subject of the duly made planning application.
- 11.30. A further document was submitted in support of the planning application, an 'Alternative Site Assessment Note' (*Core Document reference being confirmed by the LPA*) which further elaborates on the search process undertaken for selecting the Appeal Site and that brownfield sites were examined but none were found of a suitable size, that all of the suitable sites that were identified were in Green Belt locations, and that of the 4 potentially suitable sites once technical considerations had been applied, the only positive landowner response received was in respect of the land which is now the subject of this appeal.
- 11.31. I therefore consider that alternative options, including a 'do nothing' option, have been appropriately assessed in the ES and the supporting planning documentation.
- 11.32. With regard to the matter raised by APC of a smaller scheme than the Proposed Development which may have a less detrimental impact, all parties at the Appeal will be aware of the Appellant's current undetermined planning application for a smaller solar proposal which omits Field 1 to the west of Hilfield Castle and, further, that the Appellant had sought to amend the Appeal to be determined on the basis of this revised layout. However, that request to amend the Appeal to the smaller scheme was rejected and, whilst I acknowledge that the revised scheme seeks to address the reasons for refusal in lessening further the less than substantial harm identified to heritage assets and demonstrating the Very Special Circumstances (VSC) and also concerns raised regarding landscape and visual impacts, nevertheless I consider that the Appeal scheme before this Inquiry remains an acceptable proposal when considered on its own merits when I apply the planning balance and VSC test in Section 13 of my evidence.

Ecology and wildlife

- 11.33. APC, whilst acknowledging that the proposed Development will provide a number of benefits in terms of biodiversity, raise concerns as to the impact of the wire fences on larger mammals such as foxes and muntjac deer and their ability to roam.
- 11.34. As a general point, I consider that the impact on ecology and biodiversity has been comprehensively assessed through the submission of a range of ecological and environmental evidence. I note that the reported conclusion reached by Hertfordshire County Council's Ecology team as set out in the Committee Report (*Core Document CD-PA27, paragraph 10.93, page 87*) was that

'there is no reason to doubt the overall conclusion of the Environmental statement that with the benefit of mitigation and compensation, harmful effects on biodiversity will be negligible, a biodiversity net gain can be delivered and that the requirements of contemporary and emerging policy and law will be met.'

11.35. Specifically with regard to the displacement of larger mammals, whilst individual parcels accommodating solar panels would be subject to perimeter security fencing, I note that there would remain substantial open tracts of land available between the parcels for mammals to move through and between, including an east-west route through the spine of the eastern parcel via the proposed Hilfield Brook Green Wedge, which comprises a substantial 6ha are of land connecting the A41 to Elstree Aerodrome, and also the Aldenham Brook Green corridor from Aldenham Road to Watling Street which will range from 30m to 95m in width which and is to be managed to enhance biodiversity.

12. Other Material Considerations

- 12.1. Before reaching an overall planning balance, I wish to note the following material considerations which may have a bearing on the concluding planning balance.

Aviation Safety/Glint & Glare

- 12.2. Prior to the planning application being submitted, an Environmental Impact Assessment Screening Opinion was sought from the LPA, who confirmed that the only topic that would be required to be addressed within the ES was aviation safety impacts relating to the safe operation of Elstree Aerodrome.
- 12.3. The ES that was submitted with the Planning Application (*Core Document CD-PA7*) included an assessment of the potential effects on key receptors, which comprised the ATC Tower, the approach to Runway 08 and the approach to Runway 26.
- 12.4. The ES assessment concluded that both during construction and during operation, there would be no impact on the ATC Tower, and negligible effects on the two approach paths, in which the EIA assessment noted that the layout and panel characteristics have been optimised to reduce the effect significance to acceptable levels. The conclusion reached in the ES was therefore that the effect of the Proposed Development on the ATC Tower was Negligible Adverse effect (no impact), and for the Approach Paths was Minor Adverse effect (no impact).
- 12.5. With regard to Glint & Glare effects on residential properties, the Glint & Glare Assessment prepared by Pager Power (*Core Document CD-PA12e and CD-PA12f*) assessed 108 dwellings, of which four properties would have a moderate adverse impact from glint & glare arising from the Proposed Development under current baseline conditions. When mitigation screening is undertaken at these locations, there would be no glint & glare impact of these properties and no impact is expected.
- 12.6. With regard to Glint & Glare effects on road users, the Glint & Glare Assessment referred to above, 69 receptors (or areas of road) were assessed and only the road users along Butterfly Lane would have a moderate adverse effect from glint & glare arising from the Proposed Development under current baseline conditions. When mitigation screening is undertaken, there would be no glint & glare impact as the proposed screening would remove all views of the reflective areas.

Traffic and Access

- 12.7. I note that there is no objection from the local highway authority subject to suitable planning conditions, nor the strategic highway authority.
- 12.8. A S106 Unilateral Undertaking has been sought by the LPA to ensure compliance with the Construction Traffic Management Plan (the "CTMP") during the installation construction works, and also to comply with an Addendum to the CTMP which will amend the proposed delivery times to include details of a deliveries booking system and compound layout details. A draft S106 Unilateral Undertaking to secure compliance with the submitted CTMP has been circulated to all Parties in advance of the exchange of evidence.

Residential amenity



- 12.9. I have already considered aspects of noise, and glint and glare, as regards potential effect on residential amenity.
- 12.10. Mr Kratt considers residential visual amenity in his evidence at Section 7.4. He concurs with the Planning Officer's advice on this matter that the fact that some residents would be able to see the solar farm from their homes is not a valid reason for the refusal of planning permission because being able to see a development does not constitute harm to one's amenity in planning terms. Mr Kratt concludes that the potential for unacceptable harm to residential visual amenity is not an issue in relation to the Proposed Development.
- 12.11. I also share the opinion of Mr Kratt and the Planning Officer in this regard.

13. The Overall Planning Balance, Summary and Conclusions

13.1. In this section I explain how I believe the decision maker should approach the determination of this appeal, before going on to identify any material considerations that need to be weighed in the overall planning balance.

The Decision-Making Framework

13.2. The starting point for the determination of a planning application or appeal is the Development Plan. The planning system is “plan led” and planning law requires that applications for planning permission must be determined in accordance with the Development Plan unless other material considerations indicate otherwise.

13.3. Before reaching a conclusion on this matter, I turn to consider whether, in terms of national Green Belt policy as established in the NPPF, and in terms of the development plan’s Core Strategy Green Belt Policy CS13, there are Very Special Circumstances which clearly outweigh the potential harm to the Green Belt and any other harm resulting from the Proposed Development.

Material Considerations and Weight

13.4. In considering the weight that should be afforded to each consideration in the balancing exercise, I apply the following scale ranging from high to low:

- Substantial
- Significant
- Moderate
- Limited

13.5. Such weight may be ‘positive’ as a benefit, ‘adverse’ as a harm, or of ‘neutral’ effect.

13.6. Set out below is an assessment of each of these material considerations followed by a conclusion on whether the benefits outweigh any adverse impacts identified when taken as a whole.

Material Considerations which are Benefits

13.7. I consider that the following material considerations are benefits which are positive:

1. Generation of Renewable Energy and Contribution to Transition to a Low Carbon Economy

13.8. The legislative and policy framework has been set out in Section 9 of my Evidence, which establishes the imperative for significant reductions in CO2 emissions.

13.9. I consider this clearly demonstrates the immediate and pressing need for deployment of renewable energy generation in the UK, which is derived from the challenging legally binding obligations to reach “net zero” by 2050. Calculations prepared at the time the planning application was submitted indicated that the Proposed Development would make a material and appreciable contribution to



meeting the amended Climate Change 2008 targets, having a capacity of 49.9MW and generating electricity to power over 11,160 households in Hertsmere, resulting in savings of carbon dioxide emissions during its operational period of c. 11,515 tonnes of CO₂ per annum.

- 13.10. It is clear that in order for the UK to meet the ambitious target of reducing greenhouse gas emissions by 100% or "net zero" compared to 1990 levels by 2050, a presumption in favour of increasing the number and output of low carbon energy sources is necessary. The continued deployment of solar farms and renewable energy technologies more generally are recognised by the Government as a key part of the UK's transition to achieving a low carbon economy and tackling Climate Change. The very latest published government strategy statement on Energy Security Strategy confirms that a five-fold increase in solar capacity is required over the next 13 years (*Core Document CD-NPP31, page 19*).
- 13.11. Since the adoption of the current Development Plan documents (in 2013 and 2016), and even since the adoption of the Interim Planning Policy Position statement by the Council in November 2020), the increasing urgency of the need to reduce carbon emissions is self-evident, even with national energy policy being directed towards encouraging further growth in low carbon energy generation as set out in the Energy White Paper published in December 2020 (*Core Document CD-NPP7*), the publication of the Net Zero Strategy in October 2021 (*Core Document CD-NPP8*) and most recently the British Energy Security Strategy in April 2022 (*Core Document CD-NPP31*).
- 13.12. There is further benefit to be derived from the incorporation of the BESS alongside the solar farm.
- 13.13. In summary, the benefits arising from the Proposed Development in these regards include:
- Making a significant and valuable contribution to achieving carbon reduction emission targets at both a national and a local level;
 - Contributing a source of clean renewable energy which is generated from a secure, distributed and diversified energy contribution, thereby contributing to the UK's energy security needs;
 - The use of high-efficiency bi-facial panels, which have the benefit of absorbing light from both sides of the array, increasing the efficiency of the production of electricity from the site by 4% compared to mono-facial systems;
 - The associated battery storage facility would be used to reinforce the power generation from the solar farm, maximising renewable energy production from the Appeal Site, whilst providing security of electricity supply and reducing the reliance on fossil fuel generation as back-up generation to meet National Grid needs.
- 13.14. I therefore conclude that this consideration should be given **substantial** positive weight in favour of planning permission being granted.

2. Landscape Enhancements

- 13.15. I refer to the submitted Landscape Scheme and to Landscape and Ecological Management Plan which shows a significant net gain on site in terms of tree and hedgerow planting (the biodiversity net gain calculation calculates a 25% gain in linear derived units).

13.16. These measures will serve to create a more coherent landscape framework across the Appeal Site which will enhance landscape character both during the operational lifetime of the Proposed Development, and once it is decommissioned.

13.17. I consider this to represent an environmental benefit which should be given **moderate positive** weight in favour of planning permission being granted.

3. Ecological Enhancements

13.18. I refer to the Landscape & Ecological Management Plan (*Core Document CD-PA11*) which sets out a number of measures which are included in the scheme to provide enhance biodiversity:

- Additional planting of native species and long-term management of existing trees and hedgerows, to improve ecological connectivity and wildlife corridors.
- Sowing of a suitable species-rich neutral grassland seed mix on land beneath the solar panels with a suitable seed mix suitable for appropriate habitat creation.
- Provision of 20no. bat boxes on suitably sized trees, alongside 20no. dormouse nest boxes, 2 barn owl boxes, mammal underpasses, grass piles and ground nesting opportunities for skylark.

13.19. Proposed Development will provide an overall Biodiversity Net Gain of 90% in area derived units and 25% in linear derived units (*Core Document reference being confirmed by LPA*), and that these habitats will endure as a legacy of the scheme that would not be realised without it, I consider these measures to represent an environmental benefit which should be given **substantial positive** weight in favour of planning permission being granted.

4. Improvements to soil and agricultural land quality

13.20. I refer to the ALC (*Core Document CD-PA14a, paragraph 5.1.6, page 12*) which notes the conversion of arable land to grassland under solar pv panels can improve soil health, such as increasing soil organic matter and hence soil organic carbon, increasing soil biodiversity and improving soil structure. This is further noted to be consistent with the aims and objectives for improving soil health in the Government's 25 Year plan for the Environment.

13.21. I consider this benefit to the soil and facilitating its regeneration to represent an environmental benefit which should be given **moderate positive** weight in favour of planning permission being granted

5. Economic Benefits arising from construction and business rates

13.22. The Proposed Development will result in the creation of construction jobs in addition to jobs being created in the supply chain. The capital expenditure in renewable energy infrastructure would help contribute towards funding and securing delivery on low carbon targets. In addition to this, business rates would be paid to HBC.

13.23. I consider this to represent an economic benefit which should be given **significant positive** weight in favour of planning permission being granted.



6. Provision of two new Permissive Public Rights of Way

- 13.24. The Proposed Development, through its provision of two new permissive footpaths would confer several social benefits.
- 13.25. The first Permissive footpath route would allow the Belstone Football Club to make use of a corner at the rear end of their playing fields that is currently disused as it is frequently crossed by walkers utilising a Public Right of Way (no.44). Whilst the Public Right of Way would remain in place, it would likely be less frequently used as walker would be encouraged to use the Permissive footpath routes instead.
- 13.26. The second Permissive footpath route connects the existing network of public footpaths on the Appeal Site around the eastern edge of Field 12 with the nearby Hertfordshire Way long distance footpath (no.31) which passes nearby to the north of the Appeal Site, improving connections and contributing to wider Green Belt objectives in the NPPF to provide opportunities for outdoor recreation (*Core Document CD-NPPI, paragraph 145*).
- 13.27. I consider that these two new Permissive footpaths, which would endure for the operational period of the proposed Development for 35 years, to represent a social benefit which should be given **limited/moderate positive** weight in favour of planning permission being granted

7. Provision on an Educational Strategy

- 13.28. The Proposed Development would facilitate an Educational Strategy which would inform and educate local people and local schools on the principles of renewable energy generation, carbon reduction and nature conservation.
- 13.29. I consider that this social benefit, which would be secured by means of a planning condition, should be given **limited positive** weight in favour of planning permission being granted.

Other Considerations which are Neutral

- 13.30. With reference to the Officer's Committee Report, a number of material considerations were assessed upon which it was considered the Proposed Development was not held to have an adverse impact upon.
- 13.31. These matters included the effect on:
- Residential amenity;
 - Flood risk and drainage;
 - Highways and transport (subject to appropriate conditions and a S106 Undertaking); and
 - Noise (subject to appropriate conditions).
- 13.32. In respect of these material considerations, I also consider that those should be **neutral** in the planning balance.

Material Considerations which are Adverse

Effect on the openness and purposes of the Green Belt

- 13.33. I have considered the definitional harm that would result from the effect of the Proposed Development on the Green Belt by reason of it being inappropriate development in terms of the NPPF, and on the openness of the Green Belt, both on the visual and spatial openness of the Green Belt, and harm to the purposes of including land in the Green Belt in Section 8 of my evidence. I concluded that the visual impact on the openness of the Proposed Development is in most cases localised, and mitigated through the proposed screening, whilst there would be a positive legacy which would remain after the solar farm has been decommissioned with the benefit of the increased planting and other biodiversity enhancements¹¹; whilst from a spatial impact on the openness of the Proposed Development would not harm 4 of the 5 Green Belt objectives, and there would only be limited harm to the third objective which would be fully reversible upon the decommissioning of the scheme.
- 13.34. I do however consider that the definitional harm to the Green Belt, the limited extent of harm to both the visual and spatial aspects of the openness of the Green Belt, and the limited harm to the third Green Belt objective, mean that this consideration should be afforded **substantial negative** weight in the planning balance.

Effect on Landscape Character and Visual Amenity

- 13.35. Having considered the evidence of Mr Kratt, in which he concludes that there would be some moderate adverse effects on landscape character of the Appeal Site itself (albeit these would be localised in extent), and also some minor adverse effects due to the visual effects of the Proposed Development (which would be very limited due to its substantial visual containment), I consider that these limited landscape effects should be given **moderate negative** weight in the planning balance.

Effect on the Setting of Heritage Assets

- 13.36. Section 66 of the Planning (Listed Building and Conservation Areas) Act 1990 requires the decision maker to pay special regard to the desirability of preserving Listed Buildings, their settings and any architectural features they may possess. The NPPF further requires that in case of less than substantial harm, the decision maker should attach great weight to a heritage asset's conservation.
- 13.37. I have already explained that Mrs Stoten in her evidence accepts that there will be less than substantial harm to three heritage assets, albeit at the low end of the spectrum in each case. This identified harm needs to be balanced against the public benefits of the scheme as NPPF paragraph 202 requires. Given the extent and weight of the public benefits which I have examined above, I consider that these benefits do outweigh the 'less than substantial' harm to the heritage assets in these instances.
- 13.38. The Appellant has taken all reasonable steps to minimise the harm identified to further limit effects on the setting of the heritage assets. I further note that the 'less than substantial' harm as assessed

¹¹ Op cit, paragraph 8.1.9

would also be removed entirely following the decommissioning of the scheme after the 35 year time limit.

- 13.39. Whilst I consider harm to heritage assets should be afforded considerable weight in the overall planning balance, given that the harm identified is at the lower end of the 'less than substantial' scale of harm and such harm would be temporary until the solar was decommissioned, in my opinion means this matter should be given **moderate negative** weight against planning permission being granted. I note that case law explains that the duty to accord "considerable weight" to the desirability of avoiding harm does not mean that any harm, however slight, must outweigh any benefit, however great, or that all harms must be treated as having equal weight.

Demonstration of Very Special Circumstances in respect of inappropriate development in the Green Belt

- 13.40. Having considered the range of material considerations that are positive, adverse and neutral, it is my opinion that any adverse potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the development, is clearly outweighed by the benefits arising from the Proposed Development.
- 13.41. It is therefore my opinion that very special circumstances have been demonstrated in accordance with the NPPF.
- 13.42. I note that my opinion accords with the advice given by the LPA's Planning Officer to the Planning Committee (*Core Document CD- PA27, pages 100/101*).

Demonstration of Public Benefits outweighing the Less Than Substantial Harm to the Significance of Heritage Assets

- 13.43. In respect of the less than substantial harm to the significance of the heritage assets identified above, I am further of the opinion that these public benefits arising from the Proposed Development outweigh the less than substantial harm identified by Mrs Stoten, and therefore that the relevant test set out in NPPF paragraph 202 is achieved.

Overall Planning Balance

- 13.44. Having further considered the range of material considerations that are positive, adverse and neutral, it is my opinion that any adverse impacts of the Proposed Development would be significantly and demonstrably outweighed by the benefits, were it to be found that the Proposed Development did not accord with the Development Plan as a whole.
- 13.45. In my opinion the determination which would be in accordance with the Development Plan would be to allow the appeal because the Proposed Development accords, where relevant, with the Development Plan when read as a whole, given the demonstration of very special circumstances in terms of inappropriate development in the Green Belt, and in terms of the public benefits outweighing the less than substantial harm to the setting of the heritage assets.

Overall Planning Balance conclusions

- 13.46. Taken overall, for the reasons set out in Chapter 8 of my Statement and in the light of the two planning balance tests applied above in respect of the Green Belt and Heritage Assets, I consider that the proposals are overall in accordance with the Development Plan and this would normally indicate that planning permission should be approved without delay (NPPF, paragraph 11). Whilst I



acknowledge that there is harm arising from the Proposed Development on the Green Belt, very special circumstances have been demonstrated which, in my opinion, clearly outweigh the harm that would be caused to the Green Belt and any other harm in the context of the NPPF. Given that the Proposed Development does not offend the restrictive policies in relation to the Green Belt (i.e. they pass the internal NPPF very special circumstances test), or in respect of heritage assets (i.e. the public benefits outweigh the harm to the significance of the heritage assets), then the presumption in favour of sustainable development remains engaged.

13.47. There are no material considerations that indicate permission should be refused.

13.48. However, should the Inspector conclude that the Development Plan indicates that the appeal should be dismissed, then, applying S38(6), there is a need to consider whether material considerations indicate otherwise.

Overall Conclusion

13.49. Following this analysis, my conclusion is that the proposals are in general accordance with the Development Plan when read as a whole. Even if the Inspector were to conclude that there would be some conflict with relevant policies, I consider that the identified public benefits constitute material considerations that would indicate otherwise.

13.50. In view of the foregoing, the Inspector is respectfully requested to uphold this appeal and to grant planning permission.



14. Planning Conditions

- 14.1. I am of the opinion that appropriate control over the form of the Proposed Development can be achieved through the imposition of planning conditions and a S106 Unilateral Obligation with regard to implementing a Construction Traffic Management Plan.
- 14.2. A set of conditions on a without prejudice basis is in the process of being agreed with the other Parties to this appeal.



Appendix 1 – Inacoustic Technical letter, 21st September 2022

21st September 2022

PINS reference APP/N1920/W/22/3295268

our reference 22-357

Sent by Email

To Whom It May Concern,

RE: Hilfield Solar Farm. Letter re Professional Experience, Confirmation of the Noise Impact Assessment, and Rebuttal of Rule 6(6) Statement of Cases.

Please find herewith details of my Professional Experience, Confirmation of the Noise Impact Assessment, and Rebuttal of the Statement of Cases submitted by Rule 6(6) interested parties in objection to the proposed Hilfield Solar Farm. It is understood that this letter will be appended to the Proof of Evidence, to be submitted by the Appellant.

Experience and Qualifications

My name is Antony Best. I am the Managing Director of Inacoustic Ltd, which is a specialist acoustics consultancy, comprising eight staff, that was established in 2015.

I graduated from the University of Salford in 2010 with a BSc (Hons) in Acoustics. I am a corporate Member of the Institute of Acoustics (MIOA).

I undertook an industrial secondment between 2008 and 2009 at Sandy Brown Associates. On completion of my studies in 2010, I commenced a role with Eddie Jewell Acoustics, becoming a Director of that consultancy in October 2010. In 2013 I left Eddie Jewell Acoustics for a post as Principal Acoustic Engineer at MLM Consulting Engineers Ltd (prior to its rebranding to Sweco). In 2015 I left MLM Consulting Engineers to launch Inacoustic, where I remain as the Managing Director to this day.

I, personally, am experienced in a wide range of environmental noise measurement, prediction and assessment projects. These include environmental noise surveys, compliance monitoring, Environmental Impact Assessments, Integrated Pollution Prevention and Control (IPPC) authorisation assessments, planning noise assessments, Statutory Nuisance cases, construction noise assessments, occupational noise assessments, entertainment noise assessments and road traffic, railway and industrial noise assessments.

Current areas of specialism include the provision of industrial noise abatement mitigation design, energy generation and storage including; wind farms, solar farms, short-term operating reserves, and battery energy storage, road traffic noise assessments, and planning noise assessments. These assessments use state of the art noise measurement instrumentation and often employ sophisticated noise modelling techniques in accordance with International and British Standard Methodologies.

Finally, I have been an Expert Witness in Planning Public Inquiries, as well as in cases of Statutory Nuisance that have resulted in Magistrate Court hearings.

Confirmation of the Noise Impact Assessment

The noise assessment submitted as part of the original planning application was dated 17th December 2020, and references the following Planning Policies and British Standards:

- National Planning Policy Framework, 2019;
- Noise Policy Statement for England, 2010;
- National Planning Practice Guidance in England: Noise, 2019; and
- BS4142:2014+A1:2019.

Since the production of the report, the National Planning Policy Framework has been updated in July 2021. The noise assessment referenced Paragraphs 170 and 180 of the National Planning Policy Framework, 2019, as being relevant to the development, with respect to noise. Essentially, the content of Paragraphs 170 and 180 have been carried over to the July 2021 National Planning Policy Framework, but are referenced in Paragraphs 174 and 185, respectively. The content of both paragraphs remains entirely the same between the 2019 and 2021 National Planning Policy Frameworks, so the conclusions of the noise assessment have not been altered in any way by these changes.

The applicability of the Noise Policy Statement for England, 2010, the National Planning Practice Guidance in England: Noise, 2019, and BS4142:2014+A1:2019 remain current and unaltered, so the conclusions of the noise assessment report are still suitable and appropriate for the determination of the Appeal process.

Rebuttal of both Rule 6(6) Parties Statement of Cases

It is understood that there are two Rule 6(6) parties involved in the Appeal for the proposed Hillfield Solar Farm; Aldenham Parish Council and the Combined Objectors Group (Stop the Solar Plan Save our Green Belt, CPRE Herts, Letchmore Heath Village Trust, Radlett Society and Green Belt Association, Elstree and Borehamwood Green Belt Society, Save Radlett, Bhaktivedanta Manor, and Elstree and Borehamwood Town Council).

Both Rule 6(6) parties have submitted a separate Statement of Case, both of which have some reference to noise. I have reviewed both documents and have the following observations and/or comment. I have rebutted the Statements of Case separately, to ensure ease of reference.

Aldenham Parish Council Statement of Case

The Statement of Case produced by HCUK Group, on behalf of Aldenham Parish Council, references the impact of noise in Section 6.2, Paragraph H, which states the following:

“Noise could have a significant harmful impact on both walkers and wildlife. The invertor/transformer stations distributed around the fields do not seem to be designed to prevent noise emissions. Although one of the conditions proposed in the officer’s delegated report refers to a control in the

amount of noise emission, this condition relates only to the possible impact on the occupiers of residential properties.”

Whilst it is accepted that the central inverter/transformer stations may be audible in near proximity to them, when they are operating, they will be by no means audible all of the time. Paragraph 185(b) of the National Planning Policy Framework, 2021, requires that the likely effects of the impact of noise on *“identified and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason”* should be considered. Whilst it is acknowledged that numerous Public Rights of Way (PRoW) run through the proposed Hillfield Solar Farm, no areas are considered so untouched by anthropogenic noise that they could be considered as *“tranquil”*, especially given the proximity of the M1 Motorway and the London Elstree Aerodrome to the site.

Paragraph 5.3.2 of the noise assessment report notes that the noise emissions from the central inverter/transformer stations will be audible, but will likely be lower than the measured ambient sound level in the area, so will be a component of the acoustic character when in near proximity to the central inverter/transformer stations, whilst on a PRoW, but will not be so overbearing or continuous in their noise impact, such that any harmful impacts will be detectable for the few metres of walking that you might occasionally hear the operational equipment.

In Section 7.3 of the Aldenham Parish Council Statement of Case, they state:

“The condition relating to noise is questioned. It is understood that modern solar farms should not emit any noise or vibrations. However, the potential levels of noise in relation to this proposal are not clear and a much stronger condition to prevent any audible noise is required.”

Solar panels in of themselves do not emit any noise, however, the central inverter/transformer stations do have a cooling requirement, especially during high duty periods, such that they do emit aerodynamic noise from the rotational movement of the cooling fans. With respect to audibility, the suggested planning condition relating to noise, by the consulting Environmental Health Officer for Hertsmere Borough Council; is designed such that rating noise level from the proposed solar farm will have to be at least 5 dB below the background sound level, expressed as the L_{A90} , which essentially represents the quietest 10% of all sound at the residential receptors. Compliance with this planning condition will ensure low-to-no audibility at the residential receptors during all periods of the day, when the solar farm will be operational. The suggested planning condition in its current form is appropriate for the development, should it be permitted as a result of the Appeal process.

Combined Objectors Group Statement of Case

The Statement of Case produced on behalf of the Combined Objectors Group states the following with respect to noise:

“The material currently supporting the appeal is inadequate. It provides insufficient detail to allow verification of the rating sound level calculations, which are central to the noise assessment. The source sound level data does not include the measurement standard used to determine the values provided. Nor is there any or any sufficient description as to whether the values represent the equipment running at maximum capacity or some other operating duty. The noise report provides only an overall A-weighted sound level for the noise sources, but there is no description as to how that approach has been reconciled to any octave bands, so that the propagation effects can be

accurately modelled and verified. It is not clear whether the ground factor of 0.8 is appropriate. Assumed heights for the sound sources and assessment points are not given in the Noise Report. Nor can the locations of sound sources be sufficiently ascertained from the report. It is not clear that the limited correction of +2dB for acoustic characteristics of the noise is appropriate. In relation to the treatment of uncertainty factors the Noise Report lacks credibility.

For those reasons it is not clear that the noise implications of the Proposed Development could be adequately addressed by planning conditions. The R6P maintains an objection in principle based on the likely noise implications of the Proposed Development.”

Our rebuttal to the points raised in this Statement of Case are made on a subject matter basis, to ensure ease of reference.

“The source sound level data does not include the measurement standard used to determine the values provided. Nor is there any or any sufficient description as to whether the values represent the equipment running at maximum capacity or some other operating duty. The noise report provides only an overall A-weighted sound level for the noise sources, but there is no description as to how that approach has been reconciled to any octave bands, so that the propagation effects can be accurately modelled and verified.”

The referenced source levels from the central inverter/transformer stations elements of the proposal are based on a range of source data reference material that we have accumulated from different manufacturers, which typically can have sound pressure levels at 10 m of anywhere between 52 dB and 67 dB, depending on the electrical capacity, how sophisticated their cooling package is etc. Given that the proposed development is at planning stage, we are looking to establish the feasibility of any development, rather than committing to an exact model or manufacturer, as the technology is always changing and updating; there is nothing unusual in this approach. It is assumed that the equipment will be operating at maximum duty during the peak periods of production; the majority of the time, the equipment will be running at much lower levels, where typically noise levels can reduce by between 8 dB to 13 dB, depending on the technological solution adopted.

The data we hold from manufacturers is measured in accordance with recognised standards such as ISO 3744 and ISO 3746, as one would expect from a dimensional source such as a central inverter/transformer station.

The calculations were undertaken using octave band spectral data from a manufacturer, to ensure propagation effects due to ground absorption, air absorption and screening effects etc are appropriately accounted for.

“It is not clear whether the ground factor of 0.8 is appropriate.”

As noted, calculations were undertaken in accordance with ISO 9613-1:1993 and ISO 9613-2:1996. The ground factor, G, is set between 0 and 1, depending on whether the ground is hard or porous, respectively.

ISO 9613-2:1996 defines Hard Ground Section 7.3.1 as:

“

- a) **Hard ground**, which includes paving, water, ice, concrete and all other ground surfaces having a low porosity. Tamped ground, for example as often occurs around industrial sites, can be considered hard. For hard ground $G = 0$
- b) **Porous ground**, which includes ground covered by grass, trees or other vegetation, and all other ground surfaces suitable for the growth of vegetation, such as farming land. For porous ground $G = 1$

Given that the proposed development site is on ground covered by grass, arguably the Ground Factor should be $G = 1$, however, to ensure that the calculations are robust, a factor of $G = 0.8$ was selected. If this were increased to $G = 1$, as should perhaps be the case, then the predicted specific sound levels will reduce further, as a greater level of sound absorption would be allowed for. The lower, more pessimistic figure, has been adopted for absolute robustness.

“Assumed heights for the sound sources and assessment points are not given in the Noise Report.”

Central inverter/transformer stations, typically 2.5 m to the top of the enclosure, have been modelled at a point 2 m above ground level, which is typically where the cooling outlet louvres are located on the equipment. The cooling associated with the battery energy storage systems are often located on top of the containers that house the batteries; as such, these sources were modelled at 3.5 m above local ground level.

Receptor points are modelled at 1.5 m above local ground level.

“Nor can the locations of sound sources be sufficiently ascertained from the report.”

The locations of the central inverter/transformer stations and battery storage area are clearly shown in the site layout plan, on which the assessment is based.

“It is not clear that the limited correction of +2dB for acoustic characteristics of the noise is appropriate.”

The application of a tonal penalty at this stage is, of course, an entirely subjective matter, but one based on significant experience of working within the energy generation sector. In the past 12 months, we have worked on over 5 GW of energy generation schemes in the UK, for a wide range of clients; we understand complicitly their noise impact and base the subjective elements of our professional opinion on our experience of operational sites. Moreover, the proposed condition by the Local Planning Authority re noise would restrict noise at the nearest noise-sensitive receptors to at least 5 dB below the prevailing background sound level, meaning that the proposed development would have low-to-no audibility at the residential receptors during all periods of the day, when the solar farm will be operational.

“In relation to the treatment of uncertainty factors the Noise Report lacks credibility.”

Section 10 of BS4142:2014+A1:2019 considers Uncertainty in the assessment process, and the second sentence of Section 10.1 states:

“Where the level of uncertainty could affect the conclusion, take reasonably practicable steps to reduce the level of uncertainty.”

Given the level of compliance during the day and night time periods from candidate data, where options exist to select quieter equipment etc, adding in Uncertainty to the rating level assessment process would do absolutely nothing to alter the conclusion of the assessment, as at all steps, the appropriate standards were followed; including, but not limited to: BS 7445, BS 61672, BS4142:2014+A1:2019, ISO 9613-1 and ISO 9613-2.

The Combined Objectors Group also state in their Request to become a Rule 6 Party letter that:

“The collective is concerned about the validity of the noise impact assessment. The main noise report took place during Covid-19 restrictions when external noise levels were extremely limited and most people were working from home. This meant that there was no noise from school activities, the Elstree Aerodrome or even vehicular activity. The collective considers that the noise impact assessment misrepresents the noise activities on site.

Additionally, both Hilfield Castle and Hilfield Lodge are residential properties which are located in close proximity to the proposed battery storage area. The incessant noise from the proposed equipment will undoubtedly impact on their enjoyment of their residential amenity.”

The background noise survey was undertaken in July 2020, at the point of our commission to work with the Appellant on this project. The Combined Objectors Group are absolutely correct that the survey was undertaken during a period of COVID-19 restrictions, which would have reduced noise from school activities, the London Elstree Aerodrome and vehicular activity; all of which significantly enhances the robustness of the baseline data, as it will inevitably be lower than if the baseline conditions were measured at this time. Consequently, the assessment considers a much lower and more onerous baseline, than will exist under typical conditions, thus driving down the plant noise specification.

Given that the ambient sound environment is dominated by the M1 Motorway, vehicle movements were approximately at 80%¹ of their usual traffic flow during the background sound survey period. I would anticipate that, if the background noise survey were undertaken now, that L_{A90} background sound levels would be at least 1-2 dB higher than those presented in the report, but potentially higher.

Finally, the Combined Objectors Group highlight two properties; Hilfield Castle and Hilfield Lodge as particularly sensitive receptors, however, these receptors are two of the least noise affected properties from the entire scheme, as the road traffic noise from the M1 Motorway is absolutely dominant in this area.

1

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1099908/C_OVID-19-transport-use-statistics.ods (Date Last Accessed: 24th August 2022)

Conclusion

I trust the enclosed is clear. The content of both Statement of Cases does not alter my professional opinion in any way, and I stand by the conclusions of the noise assessment report to their fullest.

A handwritten signature in black ink, appearing to read 'A. Best', with a long horizontal flourish extending to the right.

Antony Best BSc (Hons) MIOA

Director

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Appendix 2 – Askew land and soil technical letter, 21st September 2022

21st September 2022



FAO Kerr Brown,
The Planning Inspectorate,
Temple Quay House,
2 The Square, Temple Quay,
Bristol,
BS1 6PN

Our Ref: LC913_v2 Hilfield Solar Farm ALC

Dear Sir / Madam,

REFERENCE: APP/N1920/W/22/3295268

HILFIELD SOLAR FARM AND BATTERY STORAGE FACILITY LAND NORTH OF BUTTERFLY LANE, LAND SURROUNDING HILFIELD FARM & LAND WEST OF HILFIELD LANE, ALDENHAM AGRICULTURAL LAND CLASSIFICATION

I am writing in connection with agricultural land quality and soil matters pertaining to an appeal by Elstree Green Limited's (the Appellant) against refusal of Hertsmere Borough Council (HBC) to grant planning permission in November 2021 (APP/N1920/W/22/3295268 and 21/0050/FULEI).

Competency

I am a Chartered Scientist (CSci) and a Fellow (F.I. Soil Sci) of the British Society of Soil Science (BSSS). I am also a Registered Environmental Impact Assessment (EIA) Practitioner with the Institute of Environmental Management and Assessment (IEMA). I have over thirty years of experience in environmental research and consultancy and I am Past President of the Institute of Professional Soil Scientists (IPSS), which is now the Professional Practice Committee of the BSSS. As an Expert Witness in agriculture and land use, I have given evidence at numerous public inquiries, including Town and Country Planning Act (1990) local plan inquiries, 1925 Allotment Act inquiries and Section 78 appeals. I am currently Topic Lead for Agriculture, Forestry and Soil for HS2 Phase 2B (Crewe to Manchester), as well as managing Agricultural Land Classification (ALC) and Soil Resource Surveys as part of National Highways' Lower Thames Crossing (LTC) highway scheme. I have given evidence on Agricultural Land Classification (ALC) at the All Party Parliamentary Group (APPG) on Agroecology at the Palace of Westminster.

Background

My practice, Askew Land & Soil Limited, carried out an ALC survey of approximately 128 hectares (ha) of agricultural land within the red line boundary of the proposed Hilfield Solar Farm in July 2020. Of the total area of agricultural land surveyed, approximately 64.4 ha is proposed to locate the solar panels. The ALC determined that 128.0 ha (or 100% of the ALC survey area) is classified as Subgrade 3b due to a soil wetness limitation. The findings of the ALC survey are given in full in a technical report (my reference C718_v1 dated 24th May 2022) in HBC Planning Application Documents online. The ALC report is up to date and no policies or ALC guidance referred to in the report have changed since the date of reporting.

Rebuttal of Combined Objectors Group (COG) Statement of Case

It is understood that the Combined Objectors Group (COG) may wish to advance evidence dealing with *inter alia* '(d) agriculture and rural activities' which states:

"The collective believes that the impact of the proposal on agricultural and rural activities was not considered in the determination of the planning application, and this constitutes a major failing by the Council's officer in his assessment of the harm caused. It is increasingly realised that the national needs of food security require the best use to be made of agricultural land, particularly where it occurs adjacent to urban and heavily populated areas.

The historic and current use of the land for agriculture including supporting of many crops should be maintained. Notwithstanding the applicant's indication that the land affected is agricultural Grade 3b by virtue of soil wetness, this is only just below the classification of Best and Most Versatile (BMV) land in MAFF guidance. The collective believes that significantly more investigation is necessary to ascertain that the majority of the site does not fall into a potential BMV category that would provide a further material planning consideration against this inappropriate development, particularly if relatively minor improvements may be feasible.

In any event, the use of land for food propagation, amongst other agricultural activities is beneficial, and the collective considers that allowing land to be taken out of food production for the purpose of providing energy is wasteful and unnecessary when many other non-productive opportunities exist for solar energy operations."

Food security is dealt with in Mr Burrells's Planning Proof of Evidence (Pegasus Reference P21-3101) under 'Agricultural Land And Rural Economy'. With regard to the Collective's view that '*that significantly more investigation is necessary to ascertain that the majority of the site does not fall into a potential BMV category*', I refer to Section 4.5 (page 110) of HBC's Committee Report dated the 11th November 2021. HBC commissioned a review of Askew Land & Soil Limited's ALC report (C718_v1 dated 24th May 2022) by an independent specialist, Soil Environment Services Limited (SES), dated the 6th August 2021. Following the review by SES, HBC concluded that '*The Council's consultant, having reviewed the applicants' consultants' report, agreed that it is indeed in category 3b, meaning that the site is not "best and most versatile" agricultural land. There was therefore no need for the applicants to revise their Agricultural Land Classification Report.*'

The Askew Land & Soil ALC has been carried out at an appropriate scale of soil survey due to the uniformity of the bedrock geology (i.e., London Clay Formation) and soil type (i.e., Windsor Association) across the whole 128ha ALC study area, and indeed the wider area. As substantiation of Subgrade 3b on London Clay/Windsor soils at the Hilfield solar farm site, MAFF has determined by post 1988 ALC survey the predominance of Subgrade 3b on similar agricultural land in the vicinity, i.e., Bury Farm, Edgware, to the southeast (i.e., MAFF Reference ALCR09398)¹; as stated at paragraph 7 of the MAFF ALC report, the Bury Farm ALC survey was carried out at a density of 1 auger-bore per 4 ha, which is the same density as the Askew Land & Soil ALC survey. MAFF also determined Subgrade 3b on agricultural land underlain by London Clay/Windsor soils in the south of Home Farm, Radlett, to the northeast (MAFF Reference ALCC1093)². Therefore, I do not agree with the Collective that '*significantly more investigation is*

¹ Ministry of Agriculture, Fisheries and Food (1992). Agricultural Land Classification detailed Post 1988 ALC survey, Edgware, Bury Farm (ALCR09398). Available online at <http://publications.naturalengland.org.uk/publication/6324254727995392> Last accessed September 2022

² Ministry of Agriculture, Fisheries and Food (1992). Agricultural Land Classification detailed Post 1988 ALC survey, Radlett, Home Farm (ALCC1093). Available online at <http://publications.naturalengland.org.uk/publication/6384066828435456> Last accessed September 2022

necessary' as there is considerable evidence that agricultural land at the Hilfield Solar Farm site is classified as Subgrade 3b, not BMV, and more investigation would not change the grading.

Rebuttal of Rule 6 Statement by Aldenham Parish Council

Aldenham Parish Council (APC) may wish to advance evidence dealing with *inter alia*:

"6.2 (d) Impact on the rural economy: The site comprises 130ha of agricultural land classified as grade 3b (moderate quality). This is a valuable resource, particularly in Hertsmere Borough where there is little grade 1/2 land and for food production. There is no guarantee that the land will be used to graze sheep and, even if there were, grazing by a small number of sheep is no compensation for the huge loss of arable farming land. This is arable/crop displacement rather than a farm diversification scheme. There is no guarantee that the site would ever revert to agricultural use in the future; there would likely be considerable development pressure after its alternative use for 35 years. Soil health could be improved without the intervening use of a solar farm."

"7.1 Aldenham Parish Council generally support the proposed conditions set out in the Council's delegated report. However, Condition 2 which stated that after 35 years "the land shall revert to its former agricultural condition" is to some extent at odds with Condition 3 which requires that "the land is to be returned to its former condition in a way that would avoid disturbing the biodiversity within the site".

"8.5 In addition, the proposed development would result in the loss of many fields used for arable farming and consequent harm to the rural economy of the area"

"8.6 Although there are benefits in terms of biodiversity and long term soil health these are not exclusive to the proposals and could be achieved by other means, such that only moderate weight can be applied."

"Appendix 2 Planning Report of David Lane, DLA. 8.0 Issue 3 Would the proposal aid farm diversification and the rural economy?"

APC's evidence above is dealt with in Mr Burrells's Planning Proof of Evidence (Pegasus Reference P21-3101) under 'Agricultural Land And Rural Economy'. I would only add that soil health is covered in detail in Askew Land & Soil Ltd's ALC report at Section 2 and Appendix 6.

Yours sincerely,



Rob Askew BSc (Hons) MSc F.I. Soil Sci CSci
Director

Encs

Professional Curriculum Vitae for R W Askew

Rob Askew BSC (Hons) MSc F.I. Soil Sci CSci

Experience

Robert Askew is a Chartered Scientist (CSci) and a Fellow (F.I. Soil Sci) of the British Society of Soil Science (BSSS). Rob is a Registered Environmental Impact Assessment (EIA) Practitioner with the Institute of Environmental Management and Assessment (IEMA). Rob has over thirty years of experience in environmental research and consultancy and he is Past President of the Institute of Professional Soil Scientists (IPSS), which is now the Professional Practice Committee of the BSSS. As an Expert Witness in agriculture and land use, Rob has given evidence at numerous public inquiries; including Town and Country Planning Act (1990) local plan inquiries, 1925 Allotment Act inquiries and Section 78 appeals. Rob is currently Topic Lead for Agriculture, Forestry and Soil for HS2 Phase 2B (Crewe to Manchester), and has recently managed Agricultural Land Classification (ALC) and Soil Resource Surveys as part of Highways England's Lower Thames Crossing (LTC) highway scheme. Rob have given evidence on soil and ALC at the All Party Parliamentary Group (APPG) on Agroecology at the Palace of Westminster.

Rob is highly experienced in land quality assessments, especially ALC, as well as general soil surveying and evaluation. Rob routinely prepares soil management strategies and advise upon the sustainable use of soil resources on construction and mineral sites. Rob specializes in mineral and waste applications and restoration and aftercare schemes. Rob also carries out agriculture impact assessments, including farm business appraisals and evaluation, and rural policy analysis.

Rob holds a CSCS Card and a range of health, safety, and environment training qualifications appropriate for soil and ALC work on infrastructure and construction projects under the Construction, Design and Management (CDM) Regulations 2015. Rob meets the requirements of the BSSS Professional Competency Standard (PCS) scheme for ALC (see BSSS PCS Document 2 '*Agricultural Land Classification of England and Wales*'). The BSSS PCS scheme is endorsed, amongst others, by the Department for Environment, Food and Rural Affairs (Defra), Natural England, the Science Council, and the Institute of Environmental Assessment and Management (IEMA).

REGISTRATIONS & CERTIFICATIONS

Fellow (F.I. Soil Sci) of the British Society of Soil Science (BSSS) (Charity No. 1134456); Past Trustee and Member of BSSS Council.

Chartered Scientist, the Science Council (CSci)

Past President of Institute of Professional Soil Scientists (IPSS) (MI Soil Sci). The IPSS is now part of the Professional Practice Committee, the Chartered Body of the British Society of Soil Science.

Registered Environmental Impact Assessment (EIA) Practitioner, Institute of Environmental Management and Assessment (IEMA).

EDUCATION

1991 MSc Landscape, Ecology, Design and Management, University of London (Wye College)

1986 BSc (Hons) Combined Sciences (Biology and Geography) University of Brighton: 1st Division, Second Class

CSCS Card - Construction Skills Certification Scheme (CSCS): Professionally Qualified Person (British Society of Soil Science Fellow)

Construction Industries Training Board (CITB) Health, Safety and Environment (Professionals and Managers). Online Card Ref. 5328456; CITB Test ID CITB001624148

ITC Certificate in Outdoor First Aid (SCQF Level 5 SCQF Credit 2)

St John Ambulance Emergency First Aid at Work - Health and Safety (First Aid) Regulations 1981

CAT & Genny Certificate – UK Construction Training Cable Avoidance Tool and Generator Certificate

Asbestos Awareness (Category A)

British Off Road Driving Association (BORDA) Four x Four Competency Certificate

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EXPERT WITNESS (AGRICULTURE, LAND USE & SOIL)

All Party Parliamentary Group (APPG) on Agroecology – Rob gave evidence and answered questions from MPs on Soils and Protection of Agricultural Land in Planning at the Palace of Westminster on 23rd November 2015. Publication of the recommendations of the Inquiry in June 2016.

HS2 Limited – High Speed Rail (London – West Midlands) Bill, House of Commons Select Committee, Westminster: Rob provided Agricultural and Soil expertise at a number of Petitions against the *HS2 Phase 1* Hybrid Bill on 5th November 2014.

LAND USE, SOIL SURVEY AND AGRICULTURAL IMPACT ASSESSMENT

HS2 Phase 2B – Topic Lead for Agriculture, Forestry and Soil. Subconsultant to Reading Agricultural Consultants under the MWJV for Lot 1 (Crewe to Manchester). Preparation of six (MA01-MA06) Environmental Statement (ES) chapters covering Agriculture, Forestry and Soil. This invoice ALC and soil surveys on approximately 1,750 ha of agricultural land required for this part of the scheme. Rob prepared the Construction Phase Plan (CPP) for the soil surveys under the CDM Regulations 2015 and carried out Health and Safety site inductions.

HS2 Phase 1 (London to Staffs) – Rob was subcontracted by Atkins as Agriculture Topic Lead on the Country North EIA (Northern Section of HS2 covering Warwickshire and Staffordshire). Rob lead the team assessing potential impacts of the high speed railway on agricultural land quality, soil resource, farm holdings, and forestry and woodland.

SUSTAINABLE SOIL USE/SOIL MANAGEMENT STRATEGY

The Network Rail (Norton Bridge Area Improvements) Order – Staffordshire Alliance: Rob produced a Soil Management Plan (SMP) as part of the Development Consent Order (DCO) process. The SMP forms part of the Construction Environmental Management Plan (CEMP).

North Oxfordshire Consortium - RAF Upper Heyford, Oxfordshire: Environmental Statement - Soils and Geology chapter for Environmental Statement. This involved identifying and safeguarding soil resources available for reuse on site.

Blue Circle Industries plc - Ockendon Clay Quarry, Essex: Chapter on soil resources for inclusion in an Environmental Statement. This includes a scheme for restoring land for agriculture and tree planting.

HIGHWAY SCHEMES – LAND USE ASSESSMENTS

Highways Agency – Lower Thames Crossing (LTC): Rob lead a team carrying out ALC and soil resources surveys on approximately 1,000 ha of agricultural land required to construct the LTC scheme. Rob prepared the Construction Phase Plan (CPP) for the soil and ALC surveys under the CDM Regulations 2015 and carried out Health and Safety site inductions.

Highways Agency – Woodside Connection, Houghton Regis, Bedfordshire: Rob carried out an Agricultural Land Classification and land use assessment of the proposed new highway to connect Woodside Business Park, Houghton Regis with a new junction on the M1 to the west of Luton. The assessment was in accordance with Stage 2 of DMRB, Vol. 11, Section 3, Part 6.

Highways Agency – A14 Ellington to Fen Ditton, Cambridgeshire: This is the largest ECI Scheme that the HA is currently developing (£0.7 billion). Acting as a sub-consultant to WSP Civils, Rob carried out a Stage 2 Land Use assessment (re DMRB 11, Vol.2, Part 6) of six options on agricultural land quality and farm holdings. Subsequently, Rob was retained by WSP Civils to review a Stage 3 (EIA) Land Use Assessment produced by the main contractor.

BAA – Proposed Expansion of Stansted Airport: Rob carried out an Agricultural Land Classification (ALC) survey of agricultural land in a 100 m wide corridor either side of the M11 motorway between the J27 (M25) and J8 (M11) associated with highway improvements as part of proposed expansion of the airport.

ENVIRONMENTAL IMPACT ASSESSMENT

Rob Askew BSC (Hons) MSc F.I. Soil Sci CSci

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Gilston Estate (Villages 1-6 and Village 7) for Places for People and City and Provincial Properties (CPP). Rob led a team which carried out an ALC/soil survey of approximately 500 ha of agricultural land required for the construction of 7 new villages (10,000 units) to the north of Harlow. Rob also prepared the Environmental Statement (ES) chapter on Agricultural Land Quality, Soils and Farm Holdings.

Genome Campus, Hinxton, Cambridgeshire – Wellcome Trust: Rob carried out the ALC/soil survey and prepared Rob also prepared the Environmental Statement (ES) chapter on Agricultural Land Quality, Soils and Farm Holdings.

BT - Adastral Park, Ipswich. Rob coordinated the production of an Environmental Statement (ES) to accompany an outline planning application on behalf of BT's in connection with the a major mixed-use (research and new 2000 unit residential) development at Martelsham Heath.

RECENT EMPLOYMENT

Director – Askew Land and Soil Limited (Present): Professional soil science practice specializing in Agricultural Land Classification (ALC), soil resource surveys, soil management plans, farm business appraisals for EIAs, preparation of Technical Reports and ES chapters in connection with land use, agriculture and soil for infrastructure, residential, mixed-use and renewable energy schemes.

Rob has previously held the following positions:

Director – RMA Environmental Ltd (July 2011 to July 2012): Responsible for Soil Consultancy Services and coordinating multi-disciplinary environmental planning projects (including coordinating EIAs) for residential, mixed-use and renewable energy schemes.

Manager – ENVIRON UK Ltd (June 2008 to July 2011): Manager within the Environmental Planning Practice, specializing in soil science and land use planning and Environmental Impact Assessment (EIA) coordination.

Principal of EDAFOS Ltd (February 2005 to May 2008): Sole trader. Registered EIA Practitioner and Expert Witness in Land Use issues, including Agricultural Land Quality, Soil Science and Farm Impact Assessments.

Associate - WSP Environmental Limited (September 2001 to May 2008): Leader of Exeter Environmental Impact Assessment (EIA) Team, part of the wider National WSP Environmental EIA Team. Specialist input as Expert Witness in Agricultural and Soil Resource issues.

Associate - Countryside Planning and Management (CPM) acquired by the Waterman Group (April 1995 to September 2001): Leader of Environmental Impact Assessment Team. Specialist input as Expert Witness in Agricultural and Soil Resource issues. Member of CPM Management Board, with responsibility for Quality Assurance and Client Care.

Senior Soil Scientist: Dr Augustus Voelcker & Sons, Acton, London (April 1992 to April 1995): Senior Soil Scientist, providing advice on landscape sites, contaminated land, arid and saline land, conservation areas, sports pitches and public open spaces; site investigations; advice on soil stripping, storing and re-use; laboratory analysis; soil quality assessment, e.g. BS3882; soil fertility and fertiliser recommendations; appropriate plant selection; soil substitutes and conditioners, including peat-free alternatives; data interpretation and preparation of soil reports.

RECENT PUBLICATIONS & PRESENTATIONS

2021: Wright, P., Askew, R.W., and Gilbert, L (2021). 'Soils and Land Quality: How to find online maps and data sets'. British Society of Soil Science Working with Soil Guidance Note. Available online at [Soils-and-Land-Quality-Final.pdf](#). Last accessed 2021.

2019: Environmental Impact Assessment (EIA) Handbook (Autumn 2019). Rob Askew prepared the sections on assessing the significance of effects of development on soil resources and agricultural land quality, especially the Best and Most Versatile (BMV) agricultural land (England and Wales) and Prime Agricultural land (Scotland). ICE Publications.



Appendix 3 – PFA Technical letter, 15th August 2022

Our Ref: GE/MLB/E224-02

15 August 2022

Owen Horrell
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BY EMAIL: owen.horrell@ensoenergy.co.uk

Dear Owen

HILLFIELD SOLAR FARM, ELSTREE, HERTS

Thank you for your instructions to review the flood risk issues and related third party objections to the above proposal.

1. Qualifications and Experience.

My name is Graham Eves. I am now employed by PFA Consulting as a Consultant to the company (having previously been a Director for over 20 years). I am a Chartered Engineer being a corporate member of both the Institution of Civil Engineers and the Chartered Institution of Highways and Transportation.

I have over 30 years' experience of preparing and overseeing Drainage and Flood Risk Assessments for Development Schemes throughout the UK. Particularly with respect to Renewable Energy Schemes I, and my company, have produced Flood Risk Assessments for over 200 Solar Energy Schemes (up to 50MW in size), primarily in England and Wales, and, as part of this work I have also reviewed Flood Risk Assessments for Solar Schemes undertaken by other Consultants and considered technical papers published in Professional Journals relating to the drainage of Solar Schemes.

2. Instructions.

I have reviewed the Flood Risk Assessment dated 16 April 2021, produced by RMA Environmental and have also reviewed the objections of the lead local flood authority and the objections of the Rule 6 Group (who rely on the responses of the LLFA).

Against this background I attach, as an Appendix to this letter, my review of the RMA Flood Risk Assessment, and the 3rd Party objections to the proposal, which I trust is of assistance.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Graham Eves'.

Graham Eves BSc CEng MICE MCIHT
Consultant
E-mail: geves@pfapl.com

Encs: Review of RMA Flood Risk Assessment and the 3rd Party Concerns.





HILLFIELD SOLAR FARM AND BATTERY STORAGE

Review of RMA, Flood Risk Assessment (FRA) and Rule 6 Parties Objections

General

The FRA follows a standard format and approach, first describing the proposed development and any relevant consultations, then identifying in detail the baseline conditions, including the underlying ground conditions, before identifying the flood risk to the development by reference to published flood mapping, historic flood events, surface water flooding, and other identifiable sources of flood risk. It then goes on to identify any relevant measures necessary to mitigate any flood risk to the development.

The FRA then sets out a drainage strategy to ensure that the proposed development will not increase flooding or flood risk elsewhere.

At the time of this review the planning policies referred to in the FRA remain up-to-date, however the climate change allowances (for peak rainfall intensity) were updated in May 2021, however for the reasons that are set out below, it is not considered that this policy update has any implications for the validity of the FRA or the acceptability of the development in Flood Risk terms. More recently (August 2022) the Flood Risk and Coastal change Planning Policy Guidance has been updated and whilst this expands the definition of a “design flood” and changes the definition of Flood Zone 3b (to a 3.33% annual probability) and also places greater emphasis on the Sequential Test, this new guidance again has no material implications for the validity of the FRA or the acceptability of the development in Flood Risk terms.

On this basis therefore the submitted FRA remains a valid assessment of the acceptability, in flood risk terms, of the proposed development.

Rule 6 Party Objections

The Rule 6 party objections rely on the latest response (dated 17 June 2021) from the head of Local Flood Authority (although the Local Planning Authority does not support the concerns expressed by the LLFA).

First, for the avoidance of doubt, as can be seen from Figure 3.1 of the FRA the entire site lies with Flood Zone 1 and is not therefore at risk of flooding from rivers. Some parts of the site are identified as being susceptible to surface water flooding and these areas are shown on Figure 3.2, 3.4a and 3.4b of the FRA.

These areas are either directly associated with identified watercourses within the site or follow overland flow paths separate from watercourses. In general, as can be seen from Figures 3.4a and 3.4b, except directly along the route of identified watercourses, any surface water flooding will be less than 600mm deep (and generally much shallower).

A solar farm development is significantly different from most other forms of large development proposals requiring a Flood Risk Assessment in that

1. Little or no changes to existing ground levels are proposed.
2. Apart from very small, discrete, areas occupied by small “control” cabinets or battery units and trackways of permeable construction the entire development area is converted to (or maintained as) grassland.

With respect to this particular proposal the submitted FRA identifies that the current use of the site is “arable”. This results in poor vegetation cover (when crops are growing) and extensive period of bare earth

following harvesting and sowing of crops before vegetation is established. The creation of a permanent grass sward will reduce the run off which would occur from bare earth by increasing interception, evapotranspiration and infiltration. It thus provides a betterment not only for present day run-off rates but also during any future climate change scenarios. This was recognised by the planning officer whose report stated the development would not be likely to result in an increase in surface water run off; on the contrary, it might even result in a reduction in run-off from the site when compared to the existing situation”.

The nature of the proposed development is also such that it will not alter, or interfere with overland flow routes

The submitted FRA makes reference to a research paper “Hydrologic Response of Solar Farm” which is acknowledged authoritative research relied upon, for example, by Essex County Council, and which demonstrates that solar farms generally do not adversely impact on run off volumes or peak flows. This analysis is also supported by a Building Research Establishment publication “Planning Guidance for the Development of Large Scale Ground Mounted PV Systems” which advises that the flood risk from such installations is not significant.

The LLFA’s present concerns, and request for further information, is therefore predicated on the false premise that the development will increase existing run-off rates and volumes and potentially interfere with existing overland flow routes.

Notwithstanding the identified potential reduction in run-off rates and volumes, and no interference with overland flow routes, the FRA does propose a flood risk mitigation measures. The most important of these is the planting framework and enhancement to the quality of grass cover, which, as identified above, will increase interception, evapotranspiration and infiltration of rainwater. In addition, however “interception” swales, located along the downslope boundaries of the individual parcels of land, are proposed.

Adopting a precautionary principle on assumption has been made that, in terms of run-off, the introduction of the panels would be equivalent to increasing the size of each of the various parcels of land by 1% (which would, for example, reflect the minimal cross-sectional area of the supports on which the panels are mounted). [Note to client: - this is an arbitrary figure for which no justification is provided, however it is a reasonable precautionary assumption].

Using this assumption, a volume of “additional” run-off from each parcel has been calculated and the “interception” swales sized accordingly as set out in **Appendix E** of the FRA. The total storage volume required for the 30 parcels identified in **Appendix E** amounts to 599 m³. The total volume of the proposed swales amounts to 911 m³. The swales therefore have a significant surplus volume which more than provides sufficient capacity for a 20% increase in climate change (Paragraph 4.18 of the FRA) with additional spare capacity to allow for subsequent 1 in 100 years rainfall events if the swales have not fully emptied (a result of evaporation and some infiltration into permeable topsoil layers (without relying on infiltration) between major rainfall events. Whilst Climate Change allowances have been updated since the FRA was produced, the 20% increase remains the appropriate increase for this development and therefore these run-off calculations remain valid.

With respect to the small (30m²) inverter stations, these are placed on a permeable granular sub-base which replicates the “permeability” of the existing ground and therefore there is no increase in run-off as a result of water falling on these small discrete areas.

The Battery Storage Area and Substation Compound comprise slightly larger areas which the FRA considers as “impermeable”. Accordingly, the FRA proposes a “positive” controlled discharge (via a swale) to the nearby watercourse. The discharge is limited to the lowest practical level of 1.5 l/s (reflecting as close to greenfield run- off rates as is practical) with storage for a 1 in 100year (plus climate change) rainfall event being provided within a permeable granular sub-base.

The access tracks are narrow linear features linking the various elements of the development and, being of permeable construction not only provide some storage volume but ensure the existing greenfield run-off from these areas is not increased.

On this basis the analysis of the proposed drainage arrangements in the FRA can be considered sound and appropriate for the nature of the development proposed and identifies arrangements which are sustainable and importantly (for a development with a limited lifespan) readily reversible.

The LLFA response then goes on to identify concerns as to how areas of “high risk” (their definition) might be developed during the construction phase. It would seem unlikely that any contractor would continue to work in parts of a construction site which are flooded – and unlike some construction projects there are unlikely to be any major issues if construction is required to be “paused” for a brief period. However, any “high risk” areas are unlikely to have a probability of flooding in a greater than a 1 in 30year event and therefore this is not a valid concern.

The response then goes on to express a concern that (some!) of the swales may be compromised during a 1 in 30 year surface water flooding event. As described above the swales are “precautionary” features and are not relied for formal drainage mitigation (as non is required). In fact, by providing additional storage, where non presently exists the swales will reduce the overall run-off from the site in all rainfall events.

Conclusions

The objections of the LLFA (and therefore the objections of the Rule 6 Parties) are predicated on the false premise that the development will increase existing run-off rates and volumes and potentially interfere with existing overland flow routes and that the drainage characteristics of a solar farm development therefore require the same consideration as any other form of major development. That is clearly not the case (as recognised by the Planning Officer and learned technical publications).

The submitted FRA provides sufficient and up to date information to confirm that the development can take place without any unacceptable risk to the development itself or without increasing flood risk elsewhere. No further information should be necessary and, providing the drainage arrangements identified in the FRA are fully implemented, no other conditions or information should be necessary.

Town & Country Planning Act 1990 (as amended)
Planning and Compulsory Purchase Act 2004

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