

I have reviewed and highlighted concerns in the following areas:

General: Flooding, farming, BMV, BNG, traffic, Applicant's financial viability and decommissioning.

Noise: Errors in the methodology and reporting of noise figures and incorrect use of relevant standards. Revisions are required before actual noise impacts on local receptors can be judged adequately.

Glint and Glare: Poor methodology that drastically underestimates the effects on residents. Concerns over the validity of assumptions used in the computer modelling. Recommend that the computer modelling is recalculated using more representative parameters before further review.

Landscape effects: Uncalibrated images provided by the applicant misrepresent actual landscape impacts that may have affected the validity of the Landscape Assessment. Proposed mitigation is inadequate and additional planting will take decades year to reach maturity and even then fails to obscure the site from all receptors.

Written Representation from Diane Abbott

1. Overview.

I am concerned about how democratic the NSIP process is able to be. The Applicant has been able to employ many different experts, over several years to create hundreds of highly technical documents and appendices which need to be reviewed in detail. However, the local councils, and other public bodies don't always have the expertise, time or resource to adequately assess the proposals, whilst also completing their day-to-day jobs.

The initial public consultation was extremely restricted, with little information, but now that the NSIP process has started we only have small window in which to read and digest huge amounts of information before submitting our comments. Overall I think this leaves the balance of favour with the Applicant.

I hope that the Examining Authority will be thorough in it's approach, but I am concerned that if various reviewing bodies fail to notice technical concerns in their rush to meet the various deadlines of the NSIP, (especially during the summer holidays) then important details might be missed.

As a close neighbour of the site I will suffer significant negative impacts and believe the submitted documentation does not adequately reflect this. I have focused my efforts on reviewing noise, glint and glare, and landscape and visual effects as these will mostly affect the amenity at my home and in my immediate surroundings. If it helps the investigation, I am happy for there to be an attended site inspection at my property which has extensive views over the site.

As a lay person I am clearly not an expert, nor have I been able to review all of the supplied documentation, but would like to highlight areas where I feel second opinions or impartial expert analysis is warranted.

2. General.

2.1. **Company Health:**

BayWa, the Company responsible for this application have recently suffered financial difficulties and their stock market price has crashed. I am concerned about their short and long term viability as a going concern. Mitigation must be put in place to ensure agreements relating to this application can be transferred to any new owners of the land or the solar installation to ensure adequate management of the risks.

2.2. **Decommissioning:** In the light of the Company's difficulties it is imperative that a bond is put in place to ensure timely and complete decommissioning of the site at the end of the 40 year term (or beforehand if solar generation ceases earlier).

2.3. **Flooding:** During the initial consultation, the Applicant was made aware of flooding that regularly occurs on local roads in multiple locations. However, they have failed to consider this in their long term plan and have not incorporated any SUDs to mitigate the risks from greater surface water run off coming from the solar panels towards the roads.

In Sections 8.59 and 8.59 of the Water Resources and Flood risk document, the report authors note the impact of climate change in the future baseline in the absence of the proposed development, yet climate change is not considered when evaluating the future impacts of the Solar Farm on localised flooding.

2.4. **Farming:** I do not believe that the site will continue to be run as a working farm (either for dairy or sheep) this needs to be clarified. If farming is lost to the area; then the long term economic effects of this must be considered.

2.5. **BMV:** Much of the site is on BMV (Best and Most Versatile) land when local brownfield sites are available and would be more appropriate.

2.6. **Ecological effects:** I do not believe enough consideration has been given to protecting the habitats of wildlife on site such as red listed bird species, otter, badger, deer etc. I would like to see more detail on this matter.

2.7. **Biodiversity Net Gain:** In my initial consultation feedback I noted how the current biodiversity of the site was reviewed conservatively, but the future position was rated very optimistically. I hope to see an independent assessment to corroborate the findings.

2.8. **Amenity improvements:** The application states that hedges will have a 5m protection zone. Where this falls next to the local roads, this area should be put aside to make safe pedestrian access along the country lanes between the local villages and outlying properties. Similarly, the mitigation planting areas that are close to roads or public rights of way, should be made accessible as open access nature reserves.

2.9. **Traffic:** Multiple site entrances and the construction compound off Coton Road will lead to additional traffic where it has not been anticipated.

3. Noise and Vibration

The noise assessment contains multiple factual errors as well as critically downplaying and misrepresenting the level of noise nuisance that will affect local residents. I am not a noise expert, however the issues I have found as a lay person lead me to believe that an impartial assessment of the report's validity needs to be carried out by a competent expert.

The following points have been raised in relation to the Environmental Statement Chapter 11: Noise and The Baseline Noise Survey Report (Appendix 11.1) and associated figures.

- 3.1. I do not agree to the scoping out of vibration impacts on residents, users of the footpaths and on wildlife.
- 3.2. Chapter 11 page 15 states "no vibration sensitive ecology sites were identified". As it is known there are badger setts on the site, and that these will be surrounded by solar panels, I cannot see how this claim can be substantiated. I also think the various birds that use the site (including red listed species), will be disturbed or displaced by the piling activities.
- 3.3. I do not agree to the scoping out of the noise impacts on the PRow through the site. There are no noise receptors that are representative of the PRow that passes through the site; therefore the applicants have failed to properly identify all of the noise sensitive receptors as required by draft EN-1 (see Chapter 11 page 6).
- 3.4. Property names are frequently misspelled: "Ladsgrove", "Pennyworth" & "Boroughfields" (instead of Boroughfields Farm Cottage, which could lead to a confusion with another local property), this is indicative of the poor quality control and lack of attention to detail within the report. Also, the properties 1,3 and 4 Oakland's Cottages are not mentioned in the documentation.
- 3.5. Due to equipment failure, there is no long term recorded data for any of the properties near Oakland's Farm. Baseline noise levels in this location are based only on 3 x daytime results (10 minutes duration) and 2 x night-time measurements (of undefined duration). A repeated long term survey must be carried out at this key location where the eight properties at the heart of the development are sited. Improper analysis of the baseline noise levels at this location will mean that noise targets and noise management measures will either be insufficient and/or cannot be effectively enforced.
- 3.6. Cross referencing the various noise tables from Appendix 11.1 (Table 0, 2, 3, 13 and 14); many of the values differ, when they should be the same. There appear to be several errors in transcribing data throughout the report. These errors have been carried forward to the Noise summary in Table 11.13.
- 3.7. Environmental Statement Chapter 11 Noise; page 46 states "Table 11.13 provides a synopsis of the measurements undertaken which are presented in detail at Appendix 11.1: Baseline Noise Survey Report". It should therefore match Appendix 11.1 Table 0 and Table 14 – and yet many values are different between all three of these tables – please can BayWa explain why?
- 3.8. Daytime noise levels for Boroughfields Farm Cottage are supposedly based on the recorded levels at Twin Oaks House (as stated in Chapter 11 section 11.73). Yet in table 14 of Appendix 11.1 they have different values (where Boroughfields Farm Cottage is shown as 41dB and Twin Oaks House as 34dB).
- 3.9. It is not clear where the daytime ambient for Boroughfields Farm Cottage of 58dB has come from (see Table 11.13 and Table 14). Boroughfields Farm Cottage had no long term data recording, no daytime attended measurements and only 2 x attended nighttime

measurements. If it is based on Twin Oak's House daytime levels it should read 41dB instead of 58dB; this is a massive difference.

- 3.10. At some receptors there has been very little effort to quantify baseline noise levels. At Rosliston there is only a single daytime and two nighttime attended surveys at a location that will affect multiple properties that are downwind of the prevailing wind).
- 3.11. BS 4142 indicates that the duration of monitoring should be adequate to represent the situation but not normally less than 15 minutes - and where shorter measurements are taken, justification should be presented. In the Applicant's reports, the daytime attended surveys were held for only 10 minutes at each location, how can this be justified? Other similar solar projects have used much more extensive baseline measurement periods, with some attended measurements being conducted for an hour at each receptor on several occasions.
- 3.12. The duration of the night-time attended surveys was not recorded – this needs to be confirmed. If it is under the recommended 15 minute duration as suggested by BS4142, then this too needs to be justified.
- 3.13. The specific measurement locations have not been recorded; therefore it is not possible to judge whether these measurements were taken at a sufficient distance from reflecting structures / buildings as indicated by BS7445.
- 3.14. The short-term, attended noise assessments should not have been carried out during rush-hour / school rush hour as these times are not representative of the tranquil nature of the area. (See Environmental Statement, Appendix 11.1, Table 2). For example the attended measurements at Twin Oak's House should not have been carried out at 8.56am or 4.41pm; similar times were also used at other receptors. The Government document MID for BS4142 (Dec 2023) clarifies this; section 7.3 states "You must not measure during the most unfavourable time interval and claim it is representative of the whole day or night period. For example during rush hour or during late evening when other sound sources can still be heard."
- 3.15. For further evidence, the rush-hour effect can clearly be seen from the chart for the unattended noise measuring at "Ladsgrove" (see Environmental Statement, Appendix 11.1, Figure 14) where the daily noise level peaks occur between 6.30 and 9.30am and 3.30 and 6.30pm. This chart would suggest that baseline daytime noise levels should be defined as averages occurring between 9.30am and 3.30pm only.
- 3.16. The Government document MID for BS4142 (Dec 2023) states "for unattended monitoring, you must use a logging weather station." It is not clear from the noise report whether this was the case or not.
- 3.17. The report authors correctly identify that BS4142 guidance should be used in assessing noise level impacts over the measured baseline. They then go on (through Sections 11.50 to 11.60) to try claim the use of BS8233 and WHO guidance to spuriously increase the baseline from the measured nighttime levels of 23dB-36dB up to 40dB across the board. This is directly in contradiction of government guidance and is a blatant attempt to manipulate the results in favour of the Applicant. I have seen no evidence of similar "changing the goalposts" in other major solar applications.
- 3.18. The Government document Method Implementation Document (MID) for BS4142 Section 8.5 states that "You must not use BS8233 to assess noise pollution from an industrial or commercial sound."
- 3.19. The use of this clearly inappropriate standard to artificially increase baseline levels by up to 16dB show the willingness of the Applicants to misrepresent the development and to purposefully mislead the average layperson reading these reports.

- 3.20. The LOAEL and SOAEL should be based on 5dB and 10dB increases above measured baseline – as defined by SDDC policy.
- 3.21. Referring to the images representing anticipated noise levels emanating from the site equipment (Figures 11.2 and 11.3). The colour key has a starting threshold of 30dB (mid green) and a maximum threshold of >70dB in 5dB increments. As the baseline noise levels start at 23dB, then the colour scale should be started at 23dB or 25dB , with further colour bands added to aid visualisation of the key impacts on local properties. Also Figures 11.2 and 11.3 fail to show all of the affected receptors.
- 3.22. Section 11.64 - 11.66 of the noise report indicates that there is very limited supporting information and frequency data from the electrical equipment manufacturers. This is a major flaw and, in the future, legislation should be put in place to ensure that adequate information on this type of equipment is mandatory.
- 3.23. Section 11.83 states that the string inverter noise sources will be sited away from residential receptors and site boundaries. However, referring to Figure 11.2 and 11.3 shows that this is clearly not the case for many of the properties including Oakland's Farm, Lad's Grave and all of Rosliston.
- 3.24. Section 11.125 states that the ground conditions are modelled as G=0.5 to take account of reflections from the solar panels. This is a 50/50 mix between hard surfaces (G=0) and porous surfaces (G=1). This is unreasonably optimistic as the solar panels will cover more than 50% of the surface area of the fields (and being tilted have a greater surface area than the flat field itself) plus the panels have both a front and back surface, plus there will also be many areas of hard standing and track. Can the authors justify this assumption?
- 3.25. In Section 11.126 the report authors explain the simulation of solar panel screening via the use of barriers every 3 or 4 rows which reduces noise levels at Lad's Grave by 4dB. Can the report authors justify the use of this modelling technique when reference to Figure 11.2 shows that there is no obvious screening of string inverters by solar panels at Lad's Grave, as the inverters are sited at the field boundary closest to the receptor?
- 3.26. Section 11.132 states that it is expected that only the transformers will have a tonal quality, whereas it is well known that string inverters also emit sound with a tonal quality. In the absence of any specific frequency data, the tonal quality modifier should be applied to all of the electrical equipment on site, not just the transformers.
- 3.27. Section 11.136 details the sound quality modifiers that have been applied to the noise generating equipment (Based on BS4142). A 2dB (just perceptible) modifier is applied to the transformers, this should be increased to 4-6dB as the tonal nature will be clearly perceptible. (NB: Mallard Pass used 4dB).
- 3.28. Section 11.136 fails to include modifiers for the tonal quality of noise from the string inverters, as these are closer to the receptors the tonal quality of the noise should again be rated between 4 and 6dB.
- 3.29. BS4142 also includes a modifier for acoustic features such as a whine, hiss or screech (again, refer to the MID for BS4142). Shouldn't this modifier be applied to the noise sources (eg inverters) as well?
- 3.30. Section 11.143 states as part of the mitigation plan, the string inverters have been sited away from the receptors. This is demonstrably not the case.
- 3.31. There is no consideration of the installation of acoustic screening and/or housing to minimise the effects of the development on any local receptors, this needs to be addressed.
- 3.32. The noise reports fail to review and address the potential for the generation of low frequency noise (< 200Hz). As I am personally very aware of low frequency noise and

already find it a nuisance in my home (day & night), I would like see a baseline assessment and future predictions for low frequency noise included.

When considering all of the above points, I feel that the Noise Report fails to accurately assess both the baseline noise environment, and the likely noise impacts from the new development. Therefore, none of the conclusions within Chapter 11 hold up to scrutiny and need to be re-assessed.

New noise maps need to be published highlighting the revised predicted sound levels, and these should clearly show where levels exceed the LOAEL and SOAEL at the receptors.

On the basis of this revised noise report, the developer should be expected to provide sound attenuated equipment, acoustic screening and other methods to minimise the impact on all nearby properties. There should also be provisions to check emitted noise levels once the site is running and to ensure that the claimed thresholds are met and enforced.

4. Glint and Glare

The following comments are all relating the Chapter 14: Glint and Glare, and also ES Appendix 14.1 the Solar Photovoltaic Glint and Glare Study.

- 4.1. I believe the Glint and Glare reports provided by Pager Power have key defects that both misrepresent and massively underestimate the level of nuisance and risk that residents and road / footpath users will be subjected to.
- 4.2. Pager Power market themselves very heavily and their website proudly proclaims, “ Get the Planning Outcomes you need”. Based on reading their methodology I can see how this is the case; they do not offer a balanced consideration that the risks and nuisance that solar glint and glare might cause to the general public, but use technical obfuscation to ensure their clients designs are approved with minimal impact or mitigations.
- 4.3. My primary concern is that the Glint and Glare analysis models only the mid-point of the solar panels at 1.75m height, rather than using the full height of the panels which is 2.7m. (See Section 2.2 of Appendix 14.1). As many of the surrounding hedges are between 1.5m and 2m tall, this will greatly underestimate scale of glint and glare effects.
- 4.4. Pager Power claim in other literature that they choose the mid-point of the panel to avoid the risk that the model fails to show Glint and Glare risks for low-lying areas, however, I believe this is of less significance than the possibility that reflections from the most visible top half of the solar panel are ignored.
- 4.5. If the risk of low lying areas being ignored by the model was a genuine concern, then it should be standard practice to run the Glint and Glare models with both the upper and lower heights of the solar panels and then carefully review any differences.
- 4.6. On Page 77 of Appendix 14.1, the SGHAT computer modelling assumptions includes the following comment:

7. The algorithm assumes that the PV array is aligned with a plane defined by the total heights of the coordinates outlined in the Google map. For more accuracy, the user should perform runs using minimum and maximum values for the vertex heights to bound the height of the plane containing the solar array. Doing so will expand the range of observed solar glare when compared to results using a single height value.

- 4.7. It is clear from this guidance that BOTH the maximum and minimum heights of a solar array should be modelled.
- 4.8. I request that the Glint and Glare analysis is repeated using the maximum height of the panels, so that it can be proven that no further areas are identified as being at risk from solar reflections that would require mitigation.

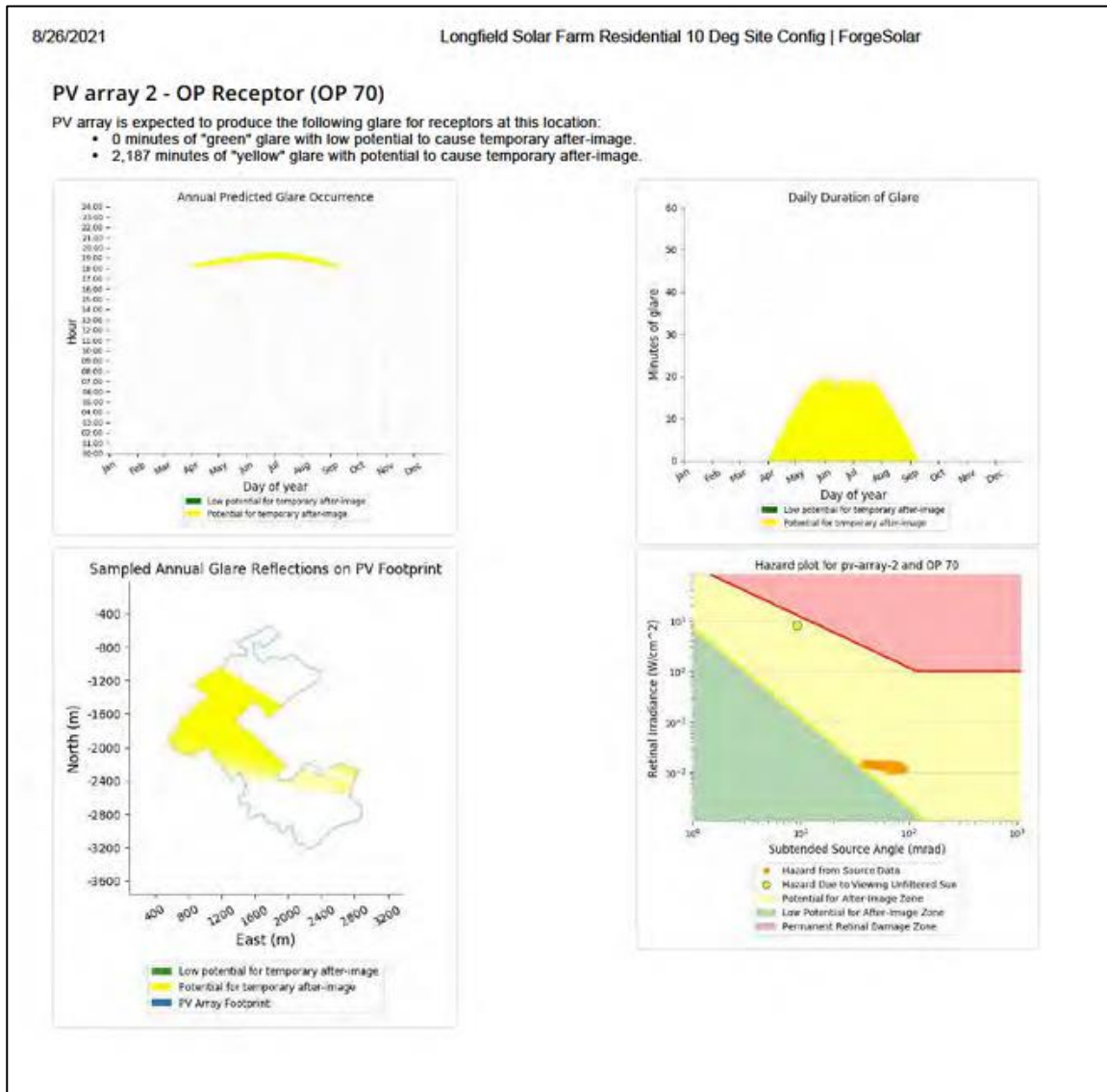
- 4.9. Similarly, Pager Power only consider the ground floor of dwellings as possible receptor points. In reality the upper floor of properties are likely to have greater glint and glare impacts and should also be considered.
- 4.10. Section 14.3 chooses to apply a very limited 1km radius for assessing local glint and glare effects because solar panels are “relatively low lying”. As the site in question is on one of the highest points nearby and the solar panels will extend higher than the hedgerows, then a 1km boundary seems unrealistically small (especially when we consider that there is no limit to the distance that light reflections can travel).
- 4.11. In Section 14.23 the impacts on pedestrians and horse-riders of Glint and Glare are excluded from the analysis. I do not agree with any of the reasons provided and feel that the PRoW and community uses should be considered.
- 4.12. I do not agree with the comments in Section 14.26 & 14.27 determining that Local roads have a “low” sensitivity to Glint and Glare. All road users (including pedestrians, cyclists and horse-riders) should expect their safety to be considered as important as any other road users, whether they are on a country lane or a major highway. In fact, the narrow, winding lanes surrounding the site require greater concentration from drivers as they frequently contain more hazards than will be present on straight, wide, major routes with good visibility.
- 4.13. Section 14.28 – Pager Power determine that local residents only have a medium sensitivity to unwanted reflections. I would define nearby residents and dwellings as having a high sensitivity to Glint and Glare, because if it is present, it is highly likely to reduce amenity on an effectively permanent basis. Other similar energy projects classify local dwellings as having a high sensitivity and I see no reason that this report should be different.
- 4.14. In sections 14.36 to 14.40 Pager Power outline the effect of magnitude of solar reflections on local dwellings. However, they choose not to use the industry best practice guidance for determining the magnitude of the effect of Glint and Glare on receptors (eg the commonly used German standards). Pager Power instead use their “expert opinion” to massively inflate these thresholds such it is very unlikely that any dwellings ever meet the top threshold requiring mitigation. This is a vast increase on the industry standard and is not based on any specific research or collected evidence.
- 4.15. The German guidance (followed in many Countries including the UK) is compared with the revised Pager Power thresholds in the table below.

	Typical industry standard (German requirements)	Pager Power revised definitions for Magnitude of Effect
High	Solar reflection impacts of over 30 hours per year OR over 30 minutes per day.	Solar reflections are experienced for more than three months per year AND for more than 60 minutes on any given day. Mitigation required.
Medium	Solar reflection impacts between 20 and 30 hours per year OR between 20 to 30 minutes per day.	Solar reflections are experienced for more than three months per year or for more than 60 minutes on any given day AND the glare scenario is considered significant. Mitigation recommended.
Low	Solar reflection impacts between 0 and 20 hours per year OR between 0 and 20 minutes per day.	Solar reflections are experienced for less than three months per year and for less than 60 minutes on any given day. Or, reflections occurring for more than three months per year or for more than 60 minutes on any given day if: The separation distance to the panel area is large (>1km). The reflection comes from a similar direction to the sun. If the reflection can't be seen from all storeys of a property. If a property doesn't have windows directly facing the area. Mitigation not required.
None / Negligible	Effects not geometrically possible or no visibility of reflective surfaces due to high levels of screening.	Solar reflections are not geometrically possible, or are not predicted to be experienced by an observer within a dwelling.

- 4.16. It is helpful to consider what this might mean in practice; based on the German criteria it is easy to understand how a new and unwanted, industrial source of bright glare into your home or garden for more than 30 minutes a day would cause a significant nuisance that you would expect to be mitigated if you lived nearby.
- 4.17. What the Pager Power thresholds do is elevate all of the requirements so that if you live nearby and have new, unwanted reflected light shining towards your house or garden for 59 minutes a day for up to 90 days a year, then you can still fall under the threshold that Pager Power define as “low” meaning that mitigation is neither required nor recommended.
- 4.18. Could Pager Power confirm whether it is theoretically possible using their modelling techniques that any property could be subject to glint or glare for longer than 60 minutes per day? If this is not possible, even for a property that is sited right in the centre of a solar farm; then I consider that the magnitude thresholds used by Pager Power are completely unreasonable.
- 4.19. I recommend that the glint and glare study should be reassessed using the Industry Standard magnitude criteria to see what difference it makes to the necessity for mitigation on local dwellings.
- For instance, using the information and charts provided on page 89 of Appendix 14.1: Lad’s Grave (Dwelling 07) experiences approximately 10-15 minutes of glare each day at about 6pm. This occurs between mid-March to October each year (approx. 180 days). This means reflections for about 45 hours per year, easily meeting the German standard threshold for High Magnitude of effect. Similar glare durations occur at multiple properties in Rosliston.
- 4.20. Unfortunately I am unable to identify whether my own property will also be subject to glare because it has not been included within the provided charts. This is because Pager Power have “predicted” that reflections will not be experienced at my location, but they have not provided evidence that this is the case. Please could the Glint and Glare document be amended to show all the relevant dwelling charts so that residents can draw their own conclusions, based on their knowledge of whether they can see the affected fields rather than a desk based assessment that could lead to mistakes being made.
- 4.21. Expanding on this point - If I refer back to the PEIR Volume 3 Appendix 14.1 page 92, this shows that morning glare will be possible for properties near Oakland’s Farm. But my own property, which has a similar level of visibility over the solar panels is excluded from the graphical results. Page 41 in this report explains that this is because no ground floor windows look towards the panels. This is not true and was pointed during the initial consultation, indeed I took the representatives of Oakland’s Solar around my house and garden so that they could see (and photograph) the views themselves. In this regard, the Applicants have failed to consider or act upon the feedback received during consultation.
- 4.22. In Section 6.4.3 of Appendix 14.1, Pager Power define their impact classification on dwellings. Here they determine whether a property is screened from glare by a desk based review. This is clearly inadequate, and leads to properties like my own being incorrectly excluded.
- 4.23. If it helps with the Examination, I am happy for an attended site inspection at my property which has extensive views over the site that are not visible from the public highway (especially not in summer).
- 4.24. Referring to the charts showing glint and glare effects on dwellings – pages 87 to 109. When scrolling through these charts, it can be seen that each forecast for glare is virtually the same. Also, the glare occurs at roughly 6pm each day. Can Pager Power explain why

the time of reflection doesn't particularly change throughout the year, even though the sunset in the summer is approximately 3 hours later than at the equinox?

- 4.25. Also, during mid-summer, the sun is in the sky longer, can Pager Power explain why the duration of reflection in the summer is not longer than at the equinoxes?
- 4.26. As an example of how other consultants analyse Glint and Glare, I would recommend reviewing the "Longfield's Solar" NSIP Appendix 10G: Glint and Glare Assessment Document Reference: EN010118/APP/6.2. This document shows glint and glare at all receptors in much more detail, including an analysis of glare intensity. (See for example page 130, snapshot shown below). The time of glare tends to vary more with the seasons, changing between 6pm and 8pm in the evening (or 4am and 6am in the mornings), and also has a much wider spread of impact durations.



- 4.27. In order to research this topic, I have read many Pager Power reports, but have found very little variance in the duration of reflections on properties. I am concerned that their parameters are flawed, and that the thresholds they have set for both High and Medium effects from glint and glare are rarely if ever met by their own calculations.
- 4.28. Pager Power claim extensive experience in preparing Glint and Glare reports, and have worked on many solar farm installations. Can they provide evidence of any instances where they have validated the accuracy of their model by investigating completed solar installations to evaluate if their predictions match with real life effects?

- 4.29. Pager Power have also gone so far as to redesign their own criteria for evaluating the magnitude of effect on dwellings that they promote widely. Can they provide evidence of how they have involved all relevant stakeholders when developing these revised thresholds?
- 4.30. The National Policy Statement of Renewable Energy Infrastructure EN-3 states in sections 2.10.104 that the intensity of a reflection should be considered for all receptors. The Pager Power reports fail to do this.
- 4.31. EN-3 section 2.10.106 also requires that the combined reflective quality of the “solar PV panels, frames and supports may need to be assessed”. This has been ignored by Pager Power. As the solar panel frames are expected to be bare aluminium or stainless steel, then their reflective quality will be much higher than the panels themselves, and should be taken into consideration.
- 4.32. In Section 4.3.1 of Appendix 14.1 (Glint and Glare Study), road users are considered to be at a height of 1.5m above ground level. This might be adequate for car drivers, pedestrians and cyclists, but does not come near to the typical height of horse riders, or the drivers of farm equipment or vans, trucks and HGVs which are commonly found on the roads in question. Any mitigation screening will need to consider the heights of these road vehicles (together with the full height of the solar panels, which is not currently modelled).
- 4.33. In Section 14.73 Pager Power identify several sections of road over 0.6km where Glint and Glare effects will be “major adverse and significant”.
- 4.34. In Section 14.78 – 14.80, the proposed mitigation for the glare experienced by road users is proposed to be hedge planting and “temporary screening” which will drop the risk to “negligible and not significant”. This mitigation is both poorly defined and woefully inadequate. Hedgerows will take decades to grow to a suitable height and thickness to screen the reflections, and any temporary screening or opaque plastic sheeting will have massively negative impacts on the character of the area and cause enormous amounts of waste.
- 4.35. The height of the proposed screening is not detailed in the Glint and Glare study, but the Landscape assessment suggests it might be 2.1m tall. If so, how will this effectively screen 2.7m panels from drivers of tall vehicles? It seems likely that much taller screening will be necessary, and therefore this needs defining (and subsequently reviewing in the Landscape Assessment).
- 4.36. A better and safer solution would be to remove panels from the areas that could cause a risk to road users.
- 4.37. Overall, I feel that that the Pager Power report fails to quantitatively and adequately assess the Glint and Glare that will impact local residents and road users and also fails to suggest and define effective mitigation. The glint and glare assessments should be re-run using corrected parameters, so that the modelling is more effective and meets all of the relevant regulatory requirements.
- 4.38. I hope that most of my questions and comments can be answered by the Applicant within the written part of the examination process, but it is possible that a specific hearing in relation to Glint and Glare would be beneficial as it is such a technical subject.

5. Landscape and Visual

- 5.1. The Landscape and Visual chapter of the Environmental Statement includes many appendices that show computer generated impressions of how the solar farm might look from different viewpoints. These images are widely used in the Oakland's Solar literature to show how discreet the project will be in the surrounding. Unfortunately these images do not seem to be accurately calibrated and they massively misrepresent the actual landscape effects. It is possible that the authors of the LUC report into Landscape and Visual impacts based their findings on these images and are not aware that the scaling is questionable. Therefore – I strongly recommend that the visualisations are correctly calibrated before the Landscape Assessment is revisited to check it's findings have not been impaired by the misleading images.
- 5.2. Below are some comments relating to the Environmental Statement: Chapter 5 Landscape and Visual and associated appendices.
- 5.3. In section 5.108 the document explains the siting of construction compounds South of Coton Road and associated removal of hedgerows. I object to the use of a construction compound in the field near the Twin Oak tree. This is highly visible to local residents and will create a noise nuisance that could easily be avoided. This position requires construction vehicles to cross Coton Road and will lead to construction traffic using non-designated entry and exit points to the site.
- 5.4. All construction compounds should be located at the centre of the site (near the BESS) to minimise impacts on local residents.
- 5.5. Also, the Twin Oaks tree (see viewpoint 5.10f) is a well known landscape feature, and to site a construction compound near it will likely cause soil compaction in the root protection zone that could lead to its demise.
- 5.6. In Section 5.147 it states that the solar panels are unlikely to alter the skyline. This conclusion has probably been made based on the provided visualisations. However, it is incorrect as the site is on a hill and the solar panels are generally higher than surrounding hedges. Therefore, the majority of the skyline / horizon around the site will be obscured for most residents as well as road and footpath users. (See images supplied in Section 6 below.)
- 5.7. Sections 5.150 and 5.151 determines that the overall effect of the development is “major (significant) adverse”, but is mitigated to “major (significant) moderate” by Year 10. Personally I do not think that the mitigating planting and hedgerows will be sufficiently developed with ten years to provide the level of screening anticipated. In particular, newly planted hedges need to be laid so that they can bulk up, this drastically reduces the height in the early years. A good quality hedge will take decades to offer good quality screening for the site.
- 5.8. In Appendix 5.3, Section 5.3.1 evaluates the Village Estates farmlands and determines “Despite its openness and rural character, scenic quality is relatively low due to intensive agriculture. Overall, the LCT is judged to be of low value.” I do not agree that the farmland in question is “intensive agriculture”, but is instead mixed arable and livestock in reasonably small fields with many well maintained hedgerows. Where hedges at the roadside are defunct or gappy, they increase the long reaching views, and add to the scenic nature of the site (rather than being a detractor). Overall I would argue that the LCT of the site should be classed having a medium value.
- 5.9. Although I agree with the Landscape and Visual assessment that there will be major, adverse impacts as a result of this development I do not agree that the proposed mitigation (hedge and tree planting) is sufficient to minimise the impact within 10 years

due to the rolling topography. I therefore feel that the long term effects will remain as major adverse, and that therefore the Applicants have failed to meet the requirement to "direct considerable effort towards minimising the landscape and visual impact of solar PV arrays" (November 2023 draft of NPS EN-35, paragraph 2.10.98).

- 5.10. The report also notes in section 5.23 that the November 2023 draft of NPS EN-35 paragraph 2.10.132- 2.10.133 states that security measures including fencing should be designed to minimise landscape and visual impact. If obscure netting or similar is planned for 10 years or more whilst hedgerows grow up, then I do not consider that is designed to "minimise landscape or visual effect".
- 5.11. In the RVVA document Appendix 5.5 Table 5.5.2 each of the local properties are rated to determine the magnitude of visual change. Having read the definitions (Table 5.5.1) I can see no reason why properties 1a, 1b, 1c, 2,3b, 4 and 5 are not rated as High (instead of medium), as they all have substantial views affected by the solar farm. It is also possible that these properties remain with a high magnitude of impact at year ten, as the mitigation planting will be ineffective due to the rolling topography of the land. I therefore suggest that this assessment is reevaluated.
- 5.12. It will perhaps be beneficial for site inspections to take places at all local properties to quantify the anticipated impacts (if this can be agreed with the residents).
- 5.13. NB: Property 3a in Appendix 5.5 Table 5.5.2 is not Orchard Cottage.

6. Sample Images detailing calibration concerns

In order to attempt to show the true impact of the solar farm at some of the receptor points, I have prepared the following images which compare some of the views presented by the Applicant, with photos and measurements taken by myself.

The reference photos prepared by the applicant were taken at a height of 1.5m to represent a typical observer. The planned deer fencing will be 2.1m tall (0.6m higher than the observer), and the solar panels at 2.7m tall will be 0.6m higher than the security fence. Because of this relationship it is clear that when the observer is closer to the fence than the nearest solar panel, then the panel will appear lower than the fence. But, when the observer or camera position is further away from the fence than the solar panels, then the panels will appear above the fence. This fixed geometric relationship is not in evidence in the images below, so it can be concluded that the solar panels (or fences) are not drawn to scale.

Where I have been able to measure a fixed object in a view (such as a fence post) I have marked this with a coloured line. I can then use this as a reference to calibrate the images (as long as I maintain the approximate distance from the camera). These different reference measurements can be seen in the images below, along with some commentary on the conclusions that can be drawn.

I hope the following acts as sufficient evidence to suggest that correctly calibrated visualisations of all of the vantage points are necessary for the purposes of the examination.

(Please see the following pages).

6.1. Images from Coton Road at the “Twin Oak Tree” (looking North).

Below is an image taken from the Environmental Statement.

It is referenced: Landscape and Visual Figures 5.10b and is a baseline photograph taken in winter.

I have been to the site and have recorded the two dimensions shown; the cut height of the winter hedge in yellow, and the gate post height in orange.



Image from Landscape and Visual Figures 5.10b. With added field measurements.

The image below is the visualisation of the same area after the first year once building work is complete.

The solar panels, security fence and gate are shown, along with temporary screening and the newly planted hedge (in tree protectors). My two measurements are shown in exactly the same places.



Image from Landscape and Visual Figures 5.11c (Year 1), with reference dimensions.

In the following image, I use the reference dimensions to compare the scale of the added features, and record my observations step by step as an example.

Zooming in will help to see the details.



Image from Landscape and Visual Figures 5.11c (Year 1), with reference dimensions.

Firstly at point **A**: it can be seen that the solar panels at the top of the hill, in the field on the right are modelled as less than half as high as the hedge – so only about 1m tall. The solar panels here should really be taller than the yellow bar.

At point **B**, the solar panels are a little taller, but still look to be less than 2m tall; again, they should be higher than the yellow bar.

At point **C**, the two stacked orange bars represent 2.8m, so the fence might be modelled a little high (if it is supposed to be 2.1m tall deer fencing). It is possible it has been modelled higher because of the protective opaque screening, but this is not clear from the documentation.

Point **D** shows that the closest solar panels on the right look like they have been modelled at about the right height (if they are the same distance away from the camera as the originally measured 1.4m gateposts).

Point **E** suggests that the gatehouse, which is likely to be at least 3m tall, has been modelled as being less than 2.8m.

Point **F** indicates that it is likely that the solar panels in the foreground of the left field have been modelled a little too small, although the distance from the camera is unclear, so this is less certain.

Geometrically, as the observer and camera position is much further from the fence than the solar panels will be, then all of the solar panels and building should appear visible above the fence line (if the fence is 2.1m tall). This is especially true as we are looking up a hill.

In this visualisation though, only a few solar panels barely exceed the fence height.

6.2. Image from Coton Road at the “Twin Oak Tree” (looking roughly South).

Below is an image taken from the Environmental Statement.

It is referenced: Landscape and Visual Figures 5.10j and is a baseline photograph taken in winter. The dimensions come from a site visit.



Image from Landscape and Visual Figures 5.10j (Year 1). With field measurements.

In the next image, it can be seen that:

A: The stacked orange lines suggest that the security fence is modelled as significantly less than 2.2m tall, perhaps 1.5m tall. In reality the fence would almost meet the top of the orange bar and would obscure the distant trees.

B: I have mirrored the 1.4m tall blue line over to the right of the image, keeping it at the same distance from the centre of the photograph so that it is effectively the same distance from the camera as the original measurement. From this comparison, it can be seen that the solar panels here are modelled as not much taller than 1.4m, perhaps 1.8m (instead of 2.7m).

C: The winter height of the hedge at point C is approximately 1.6m. (See comparison with the gatepost and gate). Using the horizontal pink line we can see that the solar panels on the left of the image have been modelled as being lower than the hedge. In reality they should be about 1m taller, which would again obscure the distant trees.

Overall the view from this location would be entirely industrial, with only the tips of the distant trees appearing above the solar panels and fences.

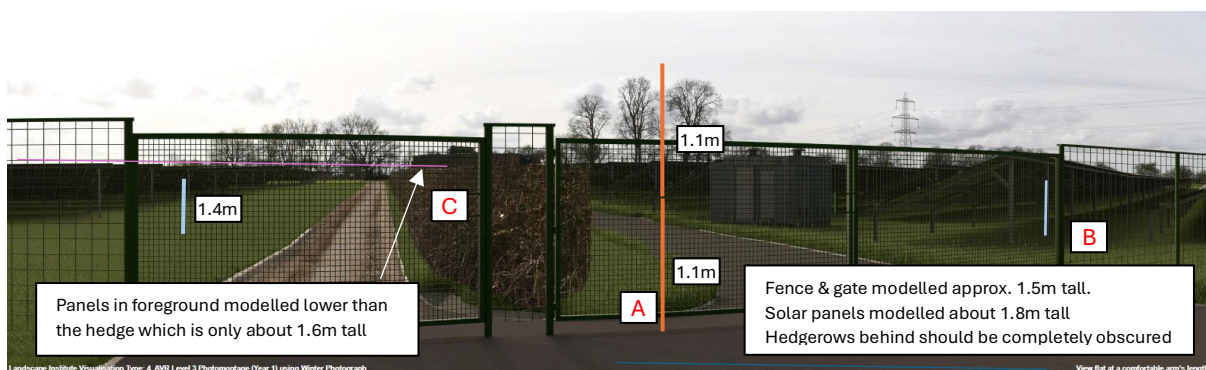


Image from Landscape and Visual Figures 5.10k (Year 1). With field measurements.

6.3. Images from Coton Road at the “Twin Oak Tree” (looking East towards Lad’s Grave).

This is the site of the second construction compound.

The photograph used by the Applicant positions the tree directly in front of Lad’s Grave.



Image from Landscape and Visual Figures 5.10f. (Lad’s Grave obscured behind tree).

Using the 1.15m fence post measurement, it can be seen that:

A: The two stacked orange lines would be about 2.3m tall, so the fence has been modelled at approximately 1.6m in the image. It should actually come almost up to the top of the orange line.

B: The camera position and the solar panels are approximately equal distances away from the fence; therefore the solar panels should visually be the same height as the fence to the observer (not significantly lower as shown).

C: In the distance, the solar panels are modelled as being significantly lower than the hedge, when in reality they should exceed it by about 1m.



Image from Landscape and Visual Figures 5.10gc (Year 1).



My own image showing Lad’s Grave and how the skyline will be completely obscured.

6.4. Images from Coton Road at the “Twin Oak Tree” (West towards Oakland’s Farm).



Image from Landscape and Visual Figures 5.10o.

In the image below, I have taken a recent photograph showing cows in the field, and overlaid onto the winter image so that the topography becomes clear. The cows are not behind the hedge as you might expect, but are on the horizon because of the rising hillside.



Image from Landscape and Visual Figures 5.10o (Year 1).

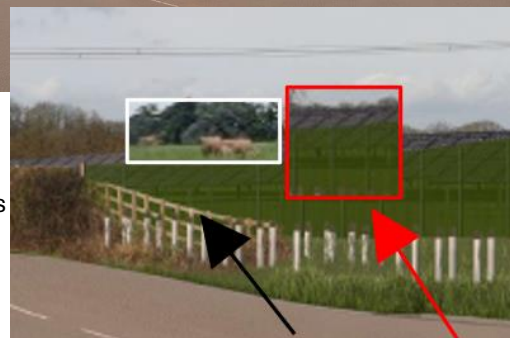
Overlaying the cow image shows that the solar panels have been modelled much lower than the ground topography allows. The red box shows the approximate height they should be shown at.

There is nothing in the view that can be used for calibration, but on the left of the image it is clear that 2.7m solar panels in the field should obscure the hedge at the end of the field as they will be up to 1m taller than it and also in the foreground.



Image from Landscape and Visual Figures 5.10p (Year 1).

Zoomed in image showing increased height of solar panels if they had been modeled based on ground topography.



6.5. Images from the Cross Britain Way (looking roughly North).

The image (5.11c) below has been used as the cover image for much of the Oakland's literature. As with the other images, there is much at fault and the calibration seems lacking.



Image from Landscape and Visual Figures 5.11b

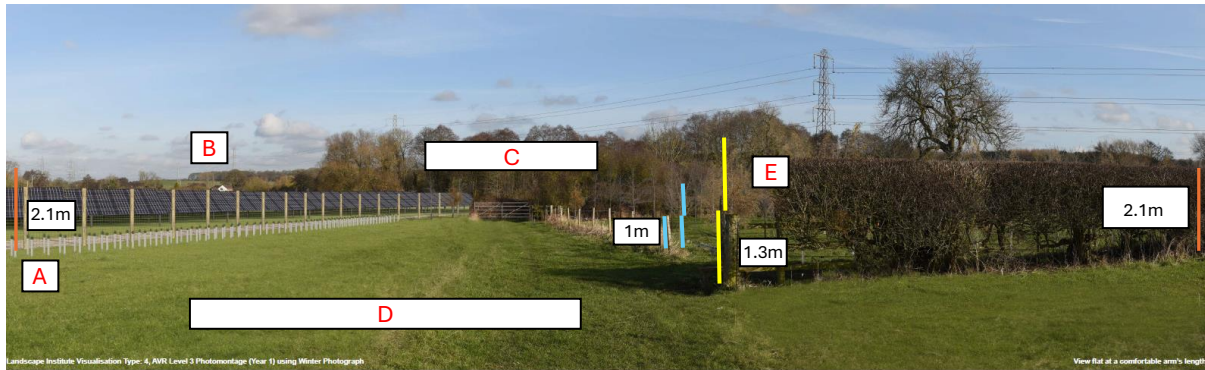
The Year 1 visualisation is shown below, together with measured heights of defined objects. Note that this image contains significant tree planting on the right of the image in the field behind the hedge, although it is hard to see without zooming in.

This view has been used as the cover image for much of the Oakland's Solar literature as it shows a discrete solar farm nestled into the surroundings. This is not accurate.



Image from Landscape and Visual Figures 5.11c (Year 1)

Based on the measurements above, it is possible to determine the following (see over).



A: Mirroring the orange line to the other side of the photo, it is possible to see that both the fence and solar panels have been modelled at a height that is much lower than 2.1m. In reality the fence should be as tall as the orange line. The tops of the solar panels, being close to the fence (but far from the observer) should rise above the fence.

B: As the solar panels should be much higher, the property (Corner Farm) and the rest of the horizon at B will be completely obscured.

C: This is the site of the haulage road and cable route – therefore extensive ground clearance and tree felling might occur along this track, but is not shown in the visual representations.

D: The grassy track shown would in reality be a 3m to 6m haulage route. It is not clear how far back the panels and fence will be sited, nor why it is left as a grassy area in this image, in reality; much of this will be hardstanding.

E: Newly planted trees are shown as almost 2.6m tall, with good canopies. In the first year, these are more likely to be 1m saplings virtually enclosed by their tree protectors. This mitigation planting height exaggeration is continued in the Year 10 images (not shown here).

6.6. Landscape summary

The above images have been provided to show that after a little investigation, it can be seen that the Applicant’s visualisations are poorly calibrated and do not show the true impact of the Solar Farm on the character of the landscape. I am concerned that these images have been used to inform the conclusions drawn in the Landscape and Visual assessment, and would therefore like revised images to be provided that offer a better degree of accuracy.