



High Grove Solar

Preliminary Environmental Information Report

Chapter 9 Glint and Glare

April 2025

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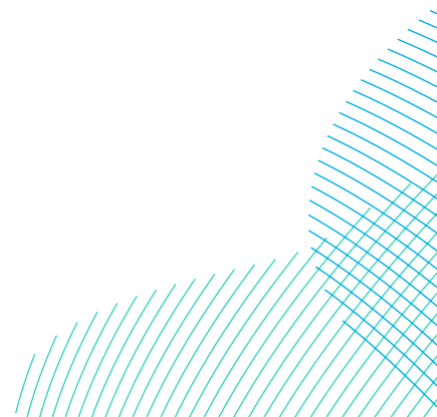
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9 Glint and Glare

9.1 Introduction

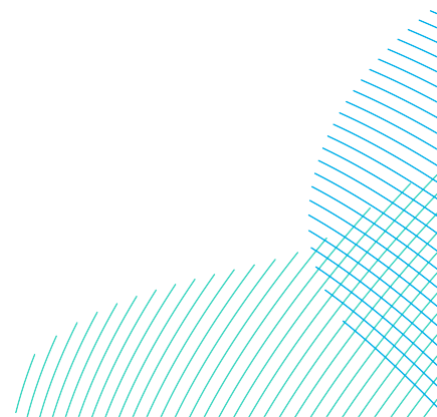
- 9.1.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) presents the findings of the preliminary assessment of the likely significant effects arising from the construction, operation and decommissioning of the Proposed Development from Glint and Glare.
- 9.1.1.2 This chapter sets out the relevant legislation, policy, standards and guidance applied to the assessment process; consultation undertaken to inform the assessment; assessment methodology; the relevant baseline conditions upon which the assessment is based; embedded and good practice mitigation considered in place before the assessment is undertaken; the likely significant effects that may arise as a result of the Proposed Development considering embedded and good practice mitigation; and any further mitigation requirements to avoid or reduce the likely significant effects; the remaining residual effects following further mitigation; and any monitoring required for remaining significant effects.
- 9.1.1.3 The following matters have been assessed as part of this chapter:
- Qualitative Glint and Glare Assessment for the Construction, Operation and Decommissioning Phases of the Proposed Development includes:
 - Aviation receptors including local airfields and Royal Airforce (RAF) bases
 - Transport routes including local roads and railway lines
 - National Trails and Public Rights of Way (PRoW)
 - Fixed receptors including dwellings and commercial properties
- 9.1.1.4 Understanding intra-project effects between topics is an integral part of the EIA process and have been considered within this chapter. The conclusions of the Landscape and Visual chapter are considered relevant to the receptors considered within this assessment, and as such are considered in the overall assessment for glint and glare.
- 9.1.1.5 This chapter is supported by the following figures:
- Figure 9.1 Zone of Theoretical Visibility
 - Figure 9.2 Aviation Receptors
 - Figure 9.3 Transport, National Trail and Public Right of Way Route Receptors
 - Figure 9.4 Fixed (Observational Point) Receptors

9.2 Relevant legislation, policy, standards and guidance

9.2.1.1 This section identifies the relevant legislation , planning policy (Table 9-1), standards and guidelines (Table 9-2) which have informed this assessment, including the methodology and identification of mitigation.

9.2.2 Legislation

9.2.2.1 There is no legislation specifically relevant to the assessment of glint and glare in relation to the Proposed Development.



9.2.3 Policy

Table 9-1 Glint and Glare - Policy

Policy	Relevance to assessment
Overarching National Policy Statement for Energy (NPS EN-1), 2024 [1] Paragraph 5.7.5 states that “applicants should assess the potential for insect infestation and emissions of odour, dust, steam, smoke, and artificial light [emphasis added] to have a detrimental impact on amenity, as part of the ES. In particular, the assessment provided by the applicant should describe: • the type, quantity and timing of emissions • aspects of the development which may give rise to emissions • premises or locations that may be affected by the emissions • effects of the emission on identified premises or locations • measures to be employed in preventing or mitigating the emissions In terms of civil or military aviation, paragraphs 5.5.37 and 5.5.39 state: “Where the proposed development may affect the performance of civil or military aviation Communication, Navigation and Surveillance (CNS), meteorological radars and/or other defence assets an assessment of potential effects should be set out in the ES.” “The applicant should consult the MOD, Met Office, Civil Aviation Authority (CAA), NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation, meteorological or other defence interests”	This PEIR chapter provides a preliminary assessment of glint and glare effects by the type, quantity and timing of the glare. Also, the locations where effects could be experienced are included. Further, aviation receptors are considered, including RAF bases within 20km of the draft Order Limits. The Applicant has and will continue to engage with the Defence Infrastructure Organisation (DIO) on behalf of the Ministry of Defence (MOD).
NPS for Renewable Energy Infrastructure (EN-3), 2024 [2] Under the subsection ‘Glint and Glare’, specific guidance is given from Paragraph 2.10.102: “Solar panels are specifically designed to absorb, not reflect, irradiation. However, solar panels may reflect the sun’s rays at certain angles, causing glint and glare. Glint is defined as a momentary flash of light that may be produced as a direct reflection of the sun in the solar panel. Glare is a continuous source of excessive brightness experienced by a stationary observer located in the path of reflected sunlight from the face of the panel. The effect occurs when the solar panel is stationed between or at an angle of the sun and the receptor. “Applicants should map receptors to qualitatively identify potential glint and glare issues and determine if a glint and glare assessment is necessary as part of the application.	In terms of paragraph 2.10.102, this PEIR Chapter considers glint and glare in qualitative assessment, which identifies receptors and assesses the impact based on the panel specifications. The assessment will consider the panel frames and structures and aligns with EN-3, with the glare resulting from the frame being less significant. In terms of 2.10.134, this PEIR Chapter models the panels with ‘anti-reflective coating’. It considers screening options to mitigate against glare.

Policy	Relevance to assessment
“When a quantitative glint and glare assessment is necessary, applicants are expected to consider the geometric possibility of glint and glare affecting nearby receptors and provide an assessment of potential impact and impairment based on the angle and duration of incidence and the intensity of the reflection. “The extent of reflectivity analysis required to assess potential impacts will depend on the specific project site and design. This may need to account for ‘tracking’ panels if they are proposed as these may cause differential diurnal and/or seasonal impacts. “When a glint and glare assessment is undertaken, the potential for solar PV panels, frames and supports to have a combined reflective quality may need to be assessed, although the glint and glare of the frames and supports is likely to be significantly less than the panels.” It continues to discuss mitigation at Paragraph 2.10.134: “Applicants should consider using, and in some cases the Secretary of State may require, solar panels to comprise of (or be covered with) anti-glare/anti-reflective coating with a specified angle of maximum reflection attenuation for the lifetime of the permission. “Applicants may consider using screening between potentially affected receptors and the reflecting panels to mitigate the effects. “Applicants may consider adjusting the azimuth alignment of, or changing the elevation tilt angle of, a solar panel within the economically viable range, to alter the angle of incidence. In practice this is unlikely to remove the potential impact altogether but in marginal cases may contribute to a mitigation strategy.” And further information is provided in relation to receptors, especially aviation receptors, at Paragraph 2.10.158: “Solar PV panels are designed to absorb, not reflect, irradiation. However, the Secretary of State should assess the potential impact of glint and glare on nearby homes, motorists, public rights of way, and aviation infrastructure (including aircraft departure and arrival flight paths). “Whilst there is some evidence that glint and glare from solar farms can be experienced by pilots and air traffic controllers in certain conditions, there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms.”	In relation to aviation receptors in Paragraph 2.10.158, this Chapter assesses the potential impact of glint and glare on nearby homes, motorists, Public Rights of Way (PRoW), and aviation infrastructure (including aircraft departure and arrival flight paths). The Chapter reflects the opinion that <i>‘there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety’</i>. However, all aviation receptors are assessed and the significance of effect determined.
National Planning Policy Framework, December 2024 [4] Specific guidance on solar development is limited, and there is no direct mention of glint and glare, but Paragraph 168 states:	This report assesses the impacts of the Proposed Development, reports the effects, and demonstrates how the proposed location is a suitable area.

Policy	Relevance to assessment
“When determining planning applications for renewable and low carbon development, local planning authorities should: a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; b) approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas	
Breckland Local Plan, September 2023 [5] Policy ENV 10 Renewable Energy Development states: “The Council supports proposals for new renewable energy and low carbon development, subject to consideration of the impact of the development and whether this can be made acceptable. Proposals will be considered having regard to the extent to which there are [inter alia]: ii. adverse effects on residential amenity by virtue of outlook / overbearing impact, traffic generation, noise, vibration, overshadowing, glare or any other associated detrimental emissions, during construction, operation and decommissioning; Proposals will be permitted where the impact is, or can be made, acceptable. Under the heading ‘Solar Photovoltaic Farm Planning Considerations’ the supporting text to Policy ENV 10 states: “key planning considerations include the quality of agricultural land, the visual and landscape impact, the effect on landscape of glint and glare and on neighbouring uses and aircraft safety, the impact of security infrastructure such as lights and fencing and the impact on the setting of heritage assets.”	The assessment considers the effect of glint and glare on the landscape, neighbouring uses and aircraft safety.

9.2.4 Standards and guidance

Table 9-2 *Glint and Glare - Standards and guidance*

Standards	Relevance to assessment
National Planning Practice Guidance (NPPG) [5] The National Planning Practice Guidance (NPPG) planning practice guidance sets out guidance for large ground mounted solar farms under the section entitled 'Renewable and Low Carbon Energy'. Paragraph 013 states: "The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. "Particular factors a local planning authority will need to consider include [inter alia]: • the proposal's visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety; • the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun; • the potential to mitigate landscape and visual impacts through, for example, screening with native hedges; "The approach to assessing cumulative landscape and visual impact of large-scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero."	This assessment considers the effect of glint and glare on the landscape, neighbouring uses and aircraft safety, as reported in section 9.5. This assessment considers the daily movements of the sun, as well as cumulative effects of glint and glare. Design will incorporate screening with features such as native hedgerows and trees.
Nationally Significant Infrastructure Projects: Technical Advice Page for Scoping Solar Development [6] Under the heading 'Glint and Glare' the advice suggests: "Following the mapping of potentially sensitive receptors, the scoping request should consider the geometric possibility for a glint and glare impact to occur. Where the potential for such an impact is identified, a glint or glare assessment should be undertaken.	In most respects this guidance has been (or will be) followed and the steps it identifies form part of the normal glint and glare assessment process that would be applied for any assessment. At this stage, the design parameters are not sufficiently well defined to allow detailed modelling of all the potential scenarios to be complete. As a

Standards	Relevance to assessment
This should be provided as a technical assessment to be included as an appendix to the Environmental Statement and, where there is potential for a likely significant effect, should inform the assessment of effects within the relevant chapters, such as landscape and visual, traffic and transport.	result, the assessment in this PEIR is qualitative rather than quantitative. It is proposed that once the parameters have been refined, detailed quantitative modelling will be undertaken and reported in the ES.
This should apply appropriate modelling and predictive techniques, charts/ diagrams and visual representations (such as GIS-based viewshed analyses) to indicate the likely extent and distance of potential glint and glare and should be informed by the following project description parameters: • panel height • panel directionality • panel design/type, for example tracker panels • panel locations and extent • identification of sensitive receptors, for example public rights of way and airports where any proposed mitigation is secured”	The guidance from the Planning Inspectorate was published after the scoping request had been prepared and submitted for this application. In the scoping request it was proposed that the glint and glare assessment would be presented as an ES chapter, however this guidance suggests it should be presented as an appendix to the ES. The technical information and assessment method proposed will meet requirements and this is simply a preference in presentation consistent with the Scoping Report.
Site Layout Planning for Daylight and Sunlight: A guide to good practice, 2022, Building Research Establishment (BRE) [8]	The assessment considers the effect of glint and glare on motorists and train drivers, as reported in section 9.5.
In the UK at the domestic level the closest guidelines regarding glint and glare are the BRE guidelines on ‘Site layout planning for Daylight and Sunlight’.	
With regard to solar dazzle these state that:	
“Glare or dazzle can occur when sunlight is reflected from a glazed façade or an area of metal cladding. There are two types of reflected glare problem that can occur. Discomfort glare causes visual discomfort without necessarily affecting the ability to see. Disability glare happens when a bright source of light (such as the reflected sun) impairs the vision of other objects. The bright light is scattered in the eye, making it harder to see everything else. Outdoors, disability glare is easily the more serious problem, as it can affect motorists’ and train drivers’ ability to drive safely.	
The problem can occur either when there are large areas of reflective glass or cladding on the façade, or when there are areas of glass or cladding that slope back so that high altitude sunlight can be reflected along the ground. Thus solar dazzle is only a long-term problem for some heavily glazed (or	

Standards	Relevance to assessment
mirror clad) buildings. Photovoltaic panels generally tend to cause less dazzle because they are designed to absorb light..	
If the reflected sun would be visible close to the driver's line of sight, even if this only happens for a small number of hours per year, then either a more detailed calculation of solar glare is required, or measures should be taken to reduce the glare."	
Interim CAA Guidance - Solar Photovoltaic Systems, 2010, Civil Aviation Authority (CAA) [9] This interim guidance makes the following recommendations (p.2-3): "8. It is recommended that, as part of a planning application, the SPV [Solar photovoltaic] developer provide safety assurance documentation (including risk assessment) regarding the full potential impact of the SPV installation on aviation interests. 9. Guidance on safeguarding procedures at CAA licensed aerodromes is published within CAP (Civil Aviation Publication)738 Safeguarding of Aerodromes and advice for unlicensed aerodromes is contained within CAP 793 Safe Operating Practices at Unlicensed Aerodromes. 10. Where proposed developments in the vicinity of aerodromes require an application for planning permission the relevant LPA [local planning authority] normally consults aerodrome operators or NATS when aeronautical interests might be affected. This consultation procedure is a statutory obligation in the case of certain major airports and may include military establishments and certain air traffic surveillance technical sites. These arrangements are explained in Department for Transport Circular 1/2003 and for Scotland, Scottish Government Circular 2/2003. 13. During the installation and associated construction of SPV systems there may also be a need to liaise with nearby aerodromes if cranes are to be used; CAA notification and permission is not required. 14. The CAA aims to replace this informal guidance with formal policy in due course and reserves the right to cancel, amend or alter the guidance provided in this document at its discretion upon receipt of new information.	This assessment considers the effect of glint and glare on aviation interests, as reported in section 9.5. In accordance with this guidance, the Applicant has and will continue to engage with the DIO on behalf of the MOD regarding RAF Marham. Shipdham Airfield is now inactive.
14CRF Part 77 - FAA Policy: Review of Solar Energy System Projects on Federally Obligated Airports, 2021, US Federal Aviation Administration (FAA) [10] In April 2018 the FAA released a new version (Version 1.1) of the '<i>Technical Guidance for Evaluating Selected Solar Technologies on Airports</i>', and in May 2021 it provided a further set of guidance	This assessment considers the effect of glint and glare on aviation interests, including the Air Traffic Control Tower (ATCT) as reported in section 9.5.

Standards	Relevance to assessment
entitled ‘14CRF Part 77 - FAA Policy: Review of Solar Energy System Projects on Federally Obligated Airports’. In this last review the FAA concluded, contrary to its initial beliefs, that: “...in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass façade buildings, parking lots, and similar features. However, FAA has continued to receive reports of potential glint and glare from on-airport solar energy systems on personnel working in Air Traffic Control Tower (ATCT) cabs. Therefore, FAA has determined the scope of agency policy should be focused on the impact of on air-port solar energy systems to federally obligated towered airports, specifically the airport’s ATCT cab.”	
Combined Aerodrome Safeguarding Team (CAST) Guidance [11] With regard to glint, it suggests that the developer should supply: “... a glint and glare survey when a development is within a distance specified by the aerodrome from an Aerodrome Reference Point (ARP) (5km in most cases)”. The document also states that: “For many aerodromes, 5km is the distance of choice but it could be considered out to 10km. In exceptional circumstances, assessments may be required beyond 10km.” The document provides some considerations on safety and states: “Safety considerations must be assessed for the design of the planned solar photovoltaic development for Air Traffic Services (ATS) personnel, pilots and for CNS equipment: • ATS personnel – The control tower (if applicable) is the most important location for visual surveillance across an aerodrome for monitoring operations on the ground as well as in the air. It is therefore of critical importance that the development of solar photovoltaic developments does not significantly hinder the view from a control tower’s visual control room (VCR). This may be from redesigning the layout and design of the proposed solar development to avoid glare from the solar panels or by avoiding the physical blocking of key viewpoints. • Pilot – A pilot’s ability to safely navigate the airspace around an aerodrome is paramount. A pilot is required to look for other aircraft and obstructions on the ground, as well as navigate towards a runway or reference points. This applies to both pilots of fixed wing aircraft and	This assessment considers the effect of glint and glare on aviation interests within c.15km of the draft Order Limits, as defined in section 9.4. Section 9.5 includes an assessment of glint and glare on: • pilots on approach • pilots in a visual circuit • pilots on the ground (departing and taxiing aircraft • ATCTs There is no specific methodology for assessing glint and glare in relation to aviation receptors, but this chapter assesses the relevant receptors and where necessary, develops adequate mitigation in conjunction with design engineers and asset owners and operator.

Standards	Relevance to assessment
helicopters in the air, and sometimes on the ground. The standard operations that should be considered are: - o pilots on approach - o pilots in a visual circuit - o pilots on the ground (departing and taxiing aircraft)." The document also makes note of other available guidance: "The UK CAA and US FAA have produced guidance with respect to glint and glare however neither of them mandates a specific methodology for assessing the effects of glint and glare. The effects of glare may mean that some solar PV developments are unacceptable, however layout modifications (such as changes to panel tilt and elevation angle) can often alleviate these concerns and overcome objections. The benefit of early consultation with the aerodrome authority cannot be understated." The document comments on the Aerodrome Operator's Safety Assurance stating: "The aerodrome operator in conjunction with any ATS personnel should, as part of the change management process in their safety management system, consider all the potential hazards posed by solar photovoltaic developments... The developer should provide the aerodrome with a safety survey which should include: • a glint and glare survey when a development is within a distance specified by the aerodrome from an Aerodrome Reference Point (ARP) (5km in most cases) • The aerodrome operator should also ensure both impact and safety assessments are undertaken to provide assurance that any on- or off-aerodrome planned development does not introduce unacceptable hazards to aircrew, ATS personnel, RFFS and aerodrome vehicle operators undertaking their tasks. • As part of the aerodrome and or ATS change management process, safety assurances should take into account any potential adverse effect to critical ATS infrastructure and equipment. The assessment must also consider any impacts to aircraft utilising instrument flight procedures and aircraft in the visual circuit. Developers should apply the same principals for safety assurance for unlicensed aerodromes and airfields as required by this policy that are not officially safeguarded. The developer in conjunction with the aerodrome operator, ATS personnel, RFFS and aerodrome operations should develop adequate mitigation to mitigate any risks identified. Should risk mitigation or agreement not be possible, the aerodrome operator should follow Local Planning Authority procedures and lodge an objection regarding the development under their statutory obligations."	

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Site Layout Planning for Daylight and Sunlight: A guide to good practice, 2022, Building Research Establishment (BRE) [8] In the UK at the domestic level the closest guidelines regarding glint and glare are the BRE guidelines on ‘Site layout planning for Daylight and Sunlight’. With regard to solar dazzle these state that: “Glare or dazzle can occur when sunlight is reflected from a glazed façade or an area of metal cladding. There are two types of reflected glare problem that can occur. Discomfort glare causes visual discomfort without necessarily affecting the ability to see. Disability glare happens when a bright source of light (such as the reflected sun) impairs the vision of other objects. The bright light is scattered in the eye, making it harder to see everything else. Outdoors, disability glare is easily the more serious problem, as it can affect motorists’ and train drivers’ ability to drive safely. The problem can occur either when there are large areas of reflective glass or cladding on the façade, or when there are areas of glass or cladding that slope back so that high altitude sunlight can be reflected along the ground. Thus solar dazzle is only a long-term problem for some heavily glazed (or mirror clad) buildings. Photovoltaic panels generally tend to cause less dazzle because they are designed to absorb light...	The assessment considers the effect of glint and glare on motorists and train drivers, as reported in section 9.5.

Standards

Relevance to assessment

If the reflected sun would be visible close to the driver’s line of sight, even if this only happens for a small number of hours per year, then either a more detailed calculation of solar glare is required, or measures should be taken to reduce the glare.”

9.3 Consultation

9.3.1 Scoping opinion

9.3.1.1 An EIA Scoping Report was submitted to the Planning Inspectorate on 6 September 2024, and a Scoping Opinion was published by the Planning Inspectorate on 17 October 2024. A summary of the key comments received and how these have been addressed in this assessment or will be addressed in the Environmental Statement (ES) is presented below:

- Planning Inspectorate comments:
 - The Planning Inspectorate agrees that receptors north of the draft Order Limits can be scoped out as they will only have visibility of the backs of the solar PV modules and therefore will not experience glint and glare effects. This preliminary assessment considers both fixed and tracker panels and therefore also considers potential receptors to the north, that could be impacted by tracker panels.
 - The Planning Inspectorate considers that significant effects of glint and glare from transitory vehicles and mobile machinery are unlikely and agrees that this matter can be scoped out of the ES.
 - The Planning Inspectorate agrees that reflections from windscreens of vehicles used during construction and decommissioning are unlikely to result in significant effects and agrees that this matter can be scoped out of the ES.
 - The Scoping Report states that there are two options for the proposed panels: static or tracking. The Planning Inspectorate recommends that this decision is made prior to submission of the DCO application. If this is not possible, the ES should identify and assess the worst case scenario for applicable topics (including Landscape and Visual, Cultural Heritage and Glint and Glare) during operation. Both scenarios are considered in this qualitative preliminary assessment and if the Applicant wishes to maintain the flexibility at DCO application both scenarios will be considered appropriately in the ES to ensure the worst case is reported.
- National Highways commented “In accordance with paragraph 70 of the 01/2022 Circular, we recommend that the Development Consent Order suite of documents includes a Glint and Glare Assessment, or similar considering the perspective of road users of the A47 to ensure road safety. For clarity, Paragraph 70 of the circular reads as follows: ‘Some developments, notably solar farms, wind turbines and those with expansive glass facades, have the potential to create glint and glare which can be a distraction for drivers. Where these developments would be visible from the SRN, promoters must provide an appropriate assessment of the intensity of solar reflection likely to be produced, which satisfies the company that safety on the SRN is not compromised.’ This assessment addresses this comment by assessing roads (including those within

the Strategic Road Network) and the effect on motorists using them, in the vicinity of the Proposed Development and out to 5km.

- Norfolk County Council's Natural Environment Team commented "Impacts will need to be considered from PRow, and the EIA will need to demonstrate how these impacts will be minimised / mitigated. Account will also need to be taken of proximity to housing and the need to avoid any potential impacts in relation to visual amenity; and "glint and glare". This assessment addresses this comment by assessing PRowS and houses in the vicinity of the Proposed Development out to 5km.

9.3.1.2 Full responses to comments received as part of the Scoping Opinion will be provided as part of the ES submitted with the application for development consent.

9.3.2 Stakeholder engagement

9.3.2.1 The following stakeholders will be engaged with regards to Glint and Glare as part of the assessment or consultation process:

- DIO due to the proximity to RAF Marham to the west
- Mid Norfolk Railway due to the heritage railway line and Yaxham and Dereham station to the east of the Eastern Panel Area.
- Network Rail (for the Mid Norfolk Heritage Railway and Yaxham Train Station)
- National Highways due to the proximity to A47 and A1065. (National Highways are also responsible for looking after some Historical Railways Estate assets on behalf of the Department for Transport. It is not clear whether they have specific responsibility in relation to Mid Norfolk Railway, but they will also be consulted in case this is the case.)
- Small airfield operators depending on the outcomes of the quantitative assessment undertaken for the ES (see Section 9.5.5).

9.3.2.2 The outputs of the engagement undertaken to date are presented in Table 9-3.

Table 9-3 Glint and Glare Engagement undertaken

Stakeholder	Date engaged	Matters raised	Response
DIO	September 2024	Effects of glint and glare on RAF Marham and associated activities.	A geometric aviation glint and glare assessment is required, to determine the extent to which glare effects will impact pilots during critical stages of flight as well as effects on Air Traffic Control Towers. Runways 06/24 and 01/19 should be considered as well as other circuit patterns and air traffic procedures. Further DIO engagement is required to establish the relevant assessment parameters before a quantitative glint and glare assessment can be undertaken. The quantitative assessment will also require more clearly defined design parameters which will become available as the project progresses. The results of the quantitative assessment will be included in the ES.

9.4 Study area

- 9.4.1.1 Study areas for glint and glare are defined as ground-based and aviation-based.
- 9.4.1.2 The study area for general ground-based receptors is taken to be the area within 5km of the Panel Areas. For aviation assets, where aircraft (and occupants of any ATCT) would be at a much higher elevation, the distance is increased. Any airfields within 20km of the Proposed Development are considered in the EIA. This study area is consistent with standard practice and hard limits within the modelling software. The ForgeSolar modelling software is industry best practice and the only software available to assess glint and glare. It cannot assess ground-based receptors or cumulative effects with other solar developments that are further than 8km away from the centre of the drawn panel area for the Proposed Development.
- 9.4.1.3 A Zone of Theoretical Visibility (ZTV) has been used to refine the number of receptors in the local vicinity down to those where it is geometrically possible for them to experience glint effects and eliminating those receptors which could not be affected.

9.5 Assessment Methodology

9.5.1 Baseline sources of information

Desktop sources

- 9.5.1.1 The following desktop sources have been used to inform the existing baseline conditions of the study area:

- Google Maps for satellite imagery and captured street level photography
- Various background raster maps including Ordnance Survey maps and Open-StreetMap maps

Survey

- 9.5.1.2 No surveys have been undertaken to date.
- 9.5.1.3 The following surveys are planned to be undertaken, and will inform the ES to be submitted with the DCO application:
- 9.5.1.4 A glint and glare walkover will be undertaken over the draft Order Limits to access visibility into the fields and then at key receptors up to 5km from the Proposed Development to access visibility at these points (likely to include local roads, residential areas). For completeness, a larger radius of up to 20 km will be used to identify aviation receptors, although there are not expected to be any effects for a receptor at this distance. Ground receptors will be determined by cross-referencing the ZTV1 against various local map data.
- 9.5.1.5 Figure 9.1 shows the ZTV used in this assessment.

9.5.2 Overview

- 9.5.2.1 Despite 'glint and glare' being acknowledged within several guidance and policy documents in the UK, there is no specific guidance on how to assess glint and glare effects across all phases of development.
- 9.5.2.2 The scope of this glint and glare assessment includes construction and decommissioning phases using a qualitative assessment based on professional judgement, due to the inherent uncertainty, movement and transience associated with construction activities. At this stage, the operational phase is also analysed qualitatively, but refinement of the design parameters will allow the quantitative assessment to be undertaken within the forthcoming ES Chapter. The methodology that will be adopted for the quantitative assessment will employ the GlareGauge software tool from ForgeSolar to model glint and glare effects on receptors.

9.5.3 Quantitative Glint and Glare Assessment for the Operational Phase of the Proposed Development

- 9.5.3.1 It is intended that operational glint and glare will be assessed quantitatively, based on the fixed parameters after further design refinement. As these parameters are not yet fixed, this chapter presents an initial qualitative assessment looking at the visibility of the Panel Areas within the draft Order Limits from aviation receptors, and ground receptors identified within approximately 5km of those Panel Areas.
- 9.5.3.2 Although it cannot be followed yet for the reasons explained above, the methodology that will be used in the ES chapter for the quantitative assessment of

¹ Note, this ZTV is specific to the glint and glare assessment and differs to that used in the Landscape Chapter. The glint and glare ZTV accounts for surface features such as buildings and vegetation, whereas the landscape assessment uses a 'bare earth' model.

glint and glare during the operational phase of the Proposed Development is explained below for completeness.

- 9.5.3.3 The assessment will rely on software that was originally developed by Sandia National Laboratories in the US, on behalf of the FAA to assess aviation glint and glare impacts. The FAA approved the use of the Solar Glare Hazard Analysis Tool (SGHAT) software model, and this has now been utilised effectively in numerous countries around the world including extensively in the UK. The software used is the GlareGauge tool that was originally developed in the United States by the Sandia National Laboratory and since improved upon and licensed to ForgeSolar.
- 9.5.3.4 The operational effects of glint and glare are expected to be geographically consistent over the duration of the Proposed Development (i.e. it is assumed that the receptors considered within the assessment are fixed and present over the Proposed Development lifetime). However, the operational effects of glint and glare will vary at a particular receptor as effects change with differing times of the day and seasons of the year.
- 9.5.3.5 Receptors that may be susceptible to glint and glare effects from the Proposed Development will be identified and assessed using ForgeSolar's GlareGauge software tool (a licensed version of the SGHAT tool) to model the effects of glint and glare on receptors for a given panel array and specification.
- 9.5.3.6 The ForgeSolar software output defines glare under a traffic light system, as 'green glare', 'yellow glare' and 'red glare'. In this report, in line with the Forge Solar modelling software, the term 'glare' is used as an umbrella term to cover both glint and glare effects.
- 9.5.3.7 The model can predict 'low intensity glare', which is termed 'green glare', and 'medium intensity glare with potential for temporary after image', which is termed 'yellow glare'. Temporary after image is a phenomenon whereby, after glancing at a bright light, the image remains burned into the retina for a short time after looking away. High intensity glare ('red glare') only occurs where there is concentrated solar energy focused on a single point. Even an observer looking directly at the sun will only experience medium intensity glare.
- 9.5.3.8 The glint and glare prediction model will indicate effects from within the Proposed Development on receptors that may be exposed to glare, if there are any at all, over the course of a full year. This includes key data on the timing and frequencies of any predicted glare events. The frequency of theoretical glare events based on geometric analysis are processed further to present more realistic results with respect to the local weather conditions occurring at the location.
- 9.5.3.9 Modern solar PV modules have an anti-reflective coating that gives the panels a dark colour with a textured finish. This feature reduces the potential of glint and glare effects occurring but cannot prevent effects entirely.
- 9.5.3.10 The quantitative assessment will identify glint and glare effects that are predicted to occur for ground-based receptors during the operational phase. Consideration will be given to the following:

- The visibility of the panels from the receptor, based on a ZTV.
- The geometrical area within which glare reflections can theoretically occur.
- The screening that is present in the form of trees, hedgerows and buildings et-cetera.
- Historic weather conditions in the region and the likelihood of glare-producing sunlight being present.

9.5.3.11 The following subsections describe the assessment process that will be used in the quantitative assessment to be provided with the ES, but which are also followed as far as possible in the qualitative assessment, given the more limited information available.

Sensitive Receptors

9.5.3.12 The sensitive receptors identified and considered in this preliminary assessment are:

- Fixed ground-based receptors including local residents;
- Local transport receptors such as road and rail;
- National Trails and PRoW; and
- Aviation receptors.

9.5.3.13 Glint and glare effects for both ground-based, which includes both point and route receptors, and aerial receptors will be assessed. A preliminary assessment of potentially susceptible receptors has identified a wide range of fixed-point receptors within circa 5 km of the Proposed Development. These are traditionally characterised as residential dwellings, commercial properties and industrial sites.

9.5.3.14 Parts of the draft Order Limits appear to be poorly screened at present, with potential visibility from numerous isolated properties in the surrounding land, as well as nearby settlements, including Dereham, Wendling, Scarning, Little Fransham, Nekton, Shipdham, Ashill, High Green, Bradenham, Sporle and Swaffham. Careful consideration has been given to the potential glare effects on all these dwellings. In addition to these, there are several route receptors that have also been assessed given the extent of the Proposed Development.

9.5.3.15 Motorists are particularly sensitive to glint and glare effects as highlighted in the UK's Road Safety Guidance, which encourages motorists as follows: "*If you are dazzled by bright sunlight, slow down and if necessary, stop*" (Rule 237, The Highway Code, 2021) [11].

9.5.3.16 Given the proximity of the rail tracks to some of the Eastern Panel Area in particular, the effects on the heritage train drivers are also given consideration.

9.5.3.17 For licensed aviation receptors, the assessment is in-line with FAA requirements, which, in the absence of their own specific guidance, have been accepted by the UK CAA. With increasing familiarity of the characteristics of solar farms, the FAA relaxed an earlier requirement that no '*medium intensity glare with potential for temporary after image*' (yellow glare) be visible to pilots on final approach to the

runway, from their normal viewing angles. In explaining its justification for this change, the FAA cited glare being an occurrence that pilots routinely deal with in the built and natural environment. It remains a requirement that no glare (red, yellow or green) should be visible at an ATCT.

- 9.5.3.18 Although it is noted that unlicensed aviation receptors are generally afforded less safeguarding protection than their licensed equivalents, the same considerations have been given for determining the level of effect that these receptors experience.

Assigning Receptor Sensitivity

- 9.5.3.19 For the purposes of this assessment, the sensitivity of the receptor is based on the likely consequence of a negative effect. For example, the potential consequence of a motorist or train driver being dazzled by glint and glare could be (in a worst-case scenario) a collision or major accident.
- 9.5.3.20 A receptor that is considered to present a possible health and safety risk is allocated as having High sensitivity. A receptor that has little or no potential for physical harm, but where residents could experience a nuisance, such as glare being visible from a property, is allocated as Medium sensitivity. A receptor that is uninhabited and irregularly frequented, or a building that does not have windows, such as a substation or warehouse, is allocated as Low sensitivity. A place where people are not usually present, such as an agricultural field with no public access, is considered to have Negligible sensitivity (i.e. it is unlikely to cause any issues even if glare were to be visible).
- 9.5.3.21 The distance from the Proposed Development also affects the level of sensitivity of a receptor (except in the case of ATCTs). With increasing distance, the sensitivity of a receptor decreases as typically there are greater screening features, and the intensity of glare is reduced with separation from the source. The receptors that have been qualitatively assessed as part of this PEIR and identified as likely to have visibility to the Panel Areas will be taken to further quantitative assessment as part of the ES chapter.
- 9.5.3.22 Table 9-4 illustrates how the sensitivity is defined for each receptor.

Table 9-4 Sensitivity Criteria for Receptors during the Operational Phase

Type of Receptor	SENSITIVITY								
	Dwelling	Commercial Property	National Trails/PROWs	Minor Road	Major Road	Motorway	Railway	Aviation Receptors	ATCT
0-500m	High	Medium	Low	Medium	High	High	High	Medium	High
500m-1km	Medium	Medium	Low	Low	Medium	High	High	Medium	High
1km-2km	Medium	Low	Low	Low	Medium	High	Medium	Medium	High
2km-3km	Low	Low	Low	Low	Low	Medium	Low	Low	High
3km-4km	Low	Negligible	Negligible	Low	Low	Medium	Low	Low	High
4km-5km	Negligible	Negligible	Negligible	Low	Low	Low	Low	Low	High

9.5.3.23 In summary, the key sensitive receptors, within the study area, that have been assessed, include:

- Ground based fixed receptors including dwellings and commercial properties;
- Ground based transportational routes including local roads and railway lines;
- Aviation receptors including local airfields and RAF bases; and
- National Trails and PRoW.

9.5.3.24 In each case, understanding the distance from the Proposed Development and the features in the immediate vicinity of the receptor determine its sensitivity.

Assigning Magnitude of Impact

9.5.3.25 The magnitude of impact on a receptor is defined by the type of glare and total amount of glare predicted at that receptor in a year. Glint and glare effects can only occur when there is unobstructed sunlight (i.e. there is no cloud or fog cover) and there is visibility to the area of the Proposed Development that is predicting glint and glare.

9.5.3.26 The magnitude of impact on a receptor intensifies if the predicted glare has the potential for temporary after image (i.e. yellow glare is predicted) and if the glare is predicted to occur at times of the day where the receptor will experience greater use. The total duration of glare predicted throughout the year also influences the magnitude of impact on a receptor.

9.5.3.27 The magnitude of impact is quantified by the output of the software which identifies the total predicted minutes of glare annually and more specifically demonstrates which month and what specific time of day the glare is expected to occur.

- 9.5.3.28 The quantitative assessment is primarily based on the output of the computer model, which, in the event that any glint and glare is visible, provides a binary result for standard glare effects. The model has a number of built in assumptions which are likely to make its assessment more precautionary. This is discussed in more detail below.
- 9.5.3.29 The computer model predicts glare effects in the absence of any consideration of screening and it assumes optimum sunlight conditions persist throughout the year. It does not recognise whether there is any intervisibility between the solar panels and the receptor and does not of its own accord account for changing weather conditions. These elements of assessment require human intervention to consider whether, in reality, visibility to panels capable of reflecting light is possible.
- 9.5.3.30 Table 9-5 illustrates how the magnitude of impact is defined depending on the level of screening, the computer model output of minutes of glare and the type of glint and glare.
- 9.5.3.31 The magnitude of impact on a receptor varies with the time of day that the glare is expected to occur. The time of day can be defined as 'peak' or 'off peak' and this is defined individually for each receptor. For example, along a local major road, if there is glare predicted during rush hour in the 'peak' times of the day, the magnitude of impact is greater than if the glare occurs at 04:30 in the morning.
- 9.5.3.32 The definition of peak hours applied for the assessment varies for different receptors.
- 9.5.3.33 For example, for roads, peak hours are considered to be between 07:00 and 21:00 each day. Outside of these hours, the roads are likely to be much quieter and therefore there is a lower risk posed to users.
- 9.5.3.34 For airports and airfields, the operating hours are considered to be the peak hours and the time outside the operating hours when they are closed are considered off peak.
- 9.5.3.35 For rail receptors, if train services are not running between certain hours, these are considered off peak times and normal operating hours are considered peak.
- 9.5.3.36 For commercial properties, during the specific receptor's opening hours (usually 08:00-18:00) are considered peak times and anytime outside of this is considered off peak.
- 9.5.3.37 For residential dwellings, the time during which residents are usually sleeping (considered to be between 22:00-07:00) is considered off peak.

Table 9-5 Magnitude Criteria during the Operational Phase

MAGNITUDE							
TOTAL ANNUAL MINUTES OF GLARE (mins/yr)	Green Glare			Yellow Glare			Red Glare
	No Screening	Partial screening	Full Screening	No Screening	Partial screening	Full Screening	All Instances
0-1,500 mins/yr Peak	Minor	Minor	Negligible	Major	Moderate	Negligible	Major
0-1,500 mins/yr Off Peak	Negligible	Negligible	Negligible	Moderate	Minor	Negligible	Major
1,500-3,000 mins/yr Peak	Negligible	Negligible	Negligible	Moderate	Minor	Negligible	Major
1,500-3,000 mins/yr Off Peak	Negligible	Negligible	Negligible	Moderate	Minor	Negligible	Major
3,000-6,000 mins/yr Peak	Minor	Minor	Negligible	Major	Moderate	Negligible	Major
3,000-6,000 mins/yr Off Peak	Negligible	Negligible	Negligible	Moderate	Minor	Negligible	Major
6,000-9,000 mins/yr Peak	Minor	Minor	Negligible	Major	Moderate	Negligible	Major
6,000-9,000 mins/yr Off Peak	Negligible	Negligible	Negligible	Moderate	Minor	Negligible	Major
9000 + mins/yr Peak	Minor	Minor	Negligible	Major	Moderate	Negligible	Major
9000 + mins/yr Off Peak	Negligible	Negligible	Negligible	Moderate	Minor	Negligible	Major

Significance Criteria

- 9.5.3.38 The significance of effect is based on the sensitivity of the receptor and the magnitude of impact on the receptor.
- 9.5.3.39 If the magnitude of impact on a receptor is major (i.e. it is predicted red glare or yellow glare without screening during both peak time and off-peak times) and the sensitivity of the receptor is High, Medium or Low, the effects are considered Significant.
- 9.5.3.40 The only case where this differs is for ATCT where regardless of what the magnitude of impact is, the effects are always Significant. Any type of glare is not permitted to be predicted at ATCTs.
- 9.5.3.41 It should be noted that if yellow glare is predicted in the ForgeSolar model (which does not account for screening), but, in reality, the receptor is already screened and there is no visibility or if visibility to potential glint and glare effects will be removed by mitigation, then effects at these receptors are considered to be Not Significant.
- 9.5.3.42 Table 9-6 illustrates how the significance of effect is derived from the magnitude of impact and the sensitivity of the receptors assessed.

Table 9-6 Significance of Effect Matrix during the Operational Phase

		Sensitivity of Receptor			
		High	Medium	Low	Negligible
Magnitude of Impact on the Receptor	Major	Significant	Significant	Significant	Significant
	Moderate	Significant	Significant	Not Significant	Not Significant
	Minor	Not Significant*	Not Significant	Not Significant	Not Significant
	Negligible	Not Significant*	Not Significant	Not Significant	Not Significant

* except for ATCTs where effects are always considered Significant regardless of the Magnitude of Impact

9.5.4 Qualitative Glint and Glare Assessment of the Construction and Decommissioning Phases of the Proposed Development

- 9.5.4.1 There is no way to quantify the minutes of glint produced by the construction and decommissioning activities, therefore a magnitude of impact on receptors cannot be quantified. There is no way to assign sensitivity levels to receptors so they would all be considered to have no sensitivity to the exposure of any glint and glare during construction and decommissioning. In all cases, the significance of effects would be Not Significant for all receptors during both these phases.
- 9.5.4.2 Only a qualitative assessment has been undertaken for the construction and decommissioning phases, based on the assessor's professional judgment. This is considered best practice within the industry.
- 9.5.4.3 The construction and decommissioning phases of the Proposed Development will be undertaken in line with commitments contained in the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) respectively. These include measures for minimising construction and decommissioning glint and glare.

9.5.5 Assumptions and Limitations

- 9.5.5.1 This section sets out the assumptions which have been made, and the limitations encountered, in this assessment.
- 9.5.5.2 There remain uncertainties at this stage regarding the final layout, orientation, angles and heights of the solar PV modules. The glint and glare study area and associated receptors will be reviewed accordingly in relation to the heights of these features, informed by further ZTVs.
- 9.5.5.3 This PEIR currently comprises a desk-based assessment, with analysis of data readily available from third party sources. Improved determination of the visibility

of the Proposed Development from receptors will be undertaken via site-visit in advance of the preparation of the ES.

- 9.5.5.4 The assessment of local airfields assumes a 2-mile straight-line final approach path with a 3-degree glide angle. Whilst this is appropriate for most airports, smaller airfields might operate under slightly different take-off and landing procedures, so this is a limitation of the current assessment. Once the design of the Proposed Development is final, and more detailed modelling is undertaken, , engagement with the closest small airfields may be undertaken depending on the outcomes of the assessment.

9.6 Baseline conditions

9.6.1 Existing baseline conditions

- 9.6.1.1 Within the draft Order Limits, the existing baseline consists of agricultural fields.
- 9.6.1.2 In the surrounding study area, there are existing sources of glint and glare that could be perceived at receptors due to the presence of multiple reflective surfaces in the local area. Reflective surfaces include, but are not limited to, other solar farms, glasshouses, waterbodies, agricultural polythene, windows in buildings, and windscreens in vehicles.
- 9.6.1.3 The aviation receptors susceptible to glint and glare are identified within 20km from the solar PV modules and ground-based receptors susceptible to glint and glare impacts are identified within 5km. They are summarised in this section and include:
- Aviation receptors including local airfields and RAF bases
 - Transport routes including local roads and railway lines
 - National Trails and PRoW
 - Fixed receptors including dwellings and commercial properties

9.6.2 Aviation receptors

- 9.6.2.1 There are two RAF bases within 20km of the Proposed Development, as well as 12 other, smaller airfields.
- 9.6.2.2 These aviation receptors are highlighted in Table 9-7 and Figure 9.2.

Table 9-7 Aviation Receptors

No.	Receptor	Receptor or receptor group
AR1	Aviation	RAF Marham (340m to the west of the Western Panel Area at its closest point)
AR2	Aviation	RAF Sculthorpe (17km to the north of the Proposed Development)
AR3	Aviation	East Winch Airfield
AR4	Aviation	Boughton and North Boughton Airfield
AR5	Aviation	Shidpham Airfield
AR6	Aviation	Great Massingham Airfield
AR7	Aviation	Felthorpe Airfield
AR8	Aviation	Southery Airstrip
AR9	Aviation	Old Buckenham Airfield
AR10	Aviation	Little Snoring Airfield
AR11	Aviation	Holly Hill Farm Airstrip
AR12	Aviation	Blue Tile Farm Airstrip
AR13	Aviation	Swanton Morley
AR14	Aviation	Great Fransham Airfield

Transport receptors

- 9.6.2.3 The receptors included in Table 9-8 are ground-based transport and pedestrian routes. They include features such as railway lines, roads and PRoW. The routes associated with these receptors will be assessed for visibility in section 9.8 Assessment of Effects. Figure 9.3 displays these visually with numerical labels.

Table 9-8 Transport Ground Receptors

No.	Receptor	Receptor or receptor group
1	Rail	Mid Norfolk Railway/Dereham Station/Yaxham Station
2	Motorists	People travelling on Swaffham Road/A1122
3	Motorists	People travelling along Chalk Lane
4	Motorists	People traveling on Narborough Hill
5	Motorists	People travelling along W Acre Road/Narford Lane
6	Motorists	People travelling along A1065 Castle Acre Road
7	Motorists	People travelling on A47
8	Motorists	People travelling along South Acre Road
9	Motorists	People travelling along Palgrave Road
10	Motorists	People travelling along Sporle Road
11	Motorists	People travelling along Long Lane
12	Motorists	People travelling along Procession Lane
13	Motorists	People travelling along Norwich Road
14	Motorists	People travelling along The Street
15	Motorists	People travelling along North Pickenham Road
16	Motorists	People travelling along Dunham Road
17	Motorists	People travelling along Tuns Road/Hale Road

No.	Receptor	Receptor or receptor group
18	Motorists	People travelling along Station Road/Hale Road/Church Street/Bradenham Road
19	Motorists	People travelling along Dereham Road
20	Motorists	People travelling along Shipdham Lane
21	Motorists	People travelling along Love Lane
22	Motorists	People travelling along Crown Lane
23	Motorists	People travelling along the track between Bradenham and Crown Lane
24	Motorists	People travelling along Goggles Lane
25	Motorists	People travelling along Wood Lane
26	Motorists	People travelling along Bradenham Lane
27	Motorists	People travelling along Hulver Street
28	Motorists	People travelling along Carr Lane
29	Motorists	People travelling along New Lane
30	Motorists	People travelling along Comar Lane
31	Motorists	People travelling along Dale Road
32	Motorists	People travelling along Coach Lane
33	Motorists	People travelling along Watery Lane
34	Motorists	People travelling along Herne Lane
35	Motorists	People travelling along Green Lane/Swan Lane
36	Motorists	People travelling along Gooseacre Lane
37	Motorists	People travelling along the A1075
38	Motorists	People travelling along Church Lane
39	Motorists	People travelling along Hills Roads/Long Road
40	Motorists	People travelling along Pages Lane
41	Motorists	People travelling along Watton Road
42	Motorists	People travelling along Beeston Road
43	Motorists	People travelling along Honeypot Lane
44	Motorists	People travelling along Grange Road
45	Motorists	People travelling along Southend
46	Motorists	People travelling along the road off Hale Road/Church Street that runs through High Green
47	Motorists	People travelling along the road between Bradenham Road and Hills Road.
48	Motorists	People travelling along the track off the A47 where observation point 76 and 87 are situated.
49	Motorists	People travelling along Park Lane.
50	Recreational users	Users of PRoW Beachamwell BR2 and the wider PRoW network.
51	Recreational users	Users of PRoW Beachamwell FP4 and the wider PRoW network.
52	Recreational users	Users of PRoW Sporle with Palgrave BR5 and the wider PRoW network.
53	Recreational users	Users of PRoW Swaffham RB55 and the wider PRoW network.
54	Recreational users	Users of PRoW Little Dunham FP2 and the wider PRoW network.

No.	Receptor	Receptor or receptor group
55	Recreational users	Users of PRoW Sporle with Palgrave BR8 and the wider PRoW network.
56	Recreational users	Users of PRoW Scarning BOAT8 and the wider PRoW network.
57	Recreational users	Users of PRoW Shipdham FP1 and the wider PRoW network.
58	Recreational users	Users of Ashill Common.
59	Recreational users	Users of permissive footpath between Dunnetts Close and Ashill RB11.
60	Recreational users	Users of PRoW Ashill RB11 and the wider PRoW network.
61	Recreational users	Users of PRoW Ashill FP7 and the wider PRoW network.
62	Recreational users	Users of PRoW South Acre RB6 and the wider PRoW network.
63	Recreational users	Users of PRoW Bradenham FP1 and the wider PRoW network.
64	Recreational users	Users of PRoW Fransham RB7 and the wider PRoW network.
65	Recreational users	The Nar Valley Way long distance trail
66	Recreational users	Users of Peddars Way and Norfolk Coast Path National Trail

Fixed ground-based receptors

- 9.6.2.4 The receptors included under this subheading are fixed and on the ground. They include features such as residential dwellings, commercial buildings, schools and specific sites of interest. Often a named receptor will represent multiple fixed receptors (such as individual properties in a residential area or a parade of shops). These receptors are analysed in further detail in Section 9.8 Assessment of Effects.
- 9.6.2.5 The Planning Inspectorate agrees that receptors north of the draft Order Limits can be scoped out of the assessment, however this analysis considers both static and tracked panels, with the latter being able to produce glare effects at receptors to the north. As a result of this, receptors in Table 9-9 are inclusive of panels in all cardinal directions. The receptors set out below are also presented in Figure 9.4.

Table 9-9 Fixed ground-based (observation point) receptors

No.	Receptor or receptor group
1	Residents in Marham
2	Residents in Upper Marham
3	R&S Engineering Motor Services
4	Little Abbey Farm
5	Smeeth Farm
6	St Andrew's Glebe Farm
7	Abbey Barn Wedding Venue
8	Sunnyholme on Chapel Lane
9	Hill Farm, Barton Bendish
10	RAF Marham ATCT
11	Warren's Barn
12	Chalk Farm

No.	Receptor or receptor group
13	Swaffham Raceway Club
14	Great Friars Farm and Future BioGas Swaffham
15	Little Grey Friars' Thornes
16	2 W Acre Road
17	Town Farm House/Peppers Cottage
18	Breckland Meadows Touring Park
19	Waitrose Carpark/North Swaffham residential area
20	GE BE Transport
21	The Splashes Campsite
22	Property off Southacre Road to the south
23	Great Palgrave
24	Properties on Palgrave Road
25	Property off Palgrave Road, Palgrave Hall
26	Grange Farm Grain Store
27	Mill Cottage
28	Fuel Station/Amazon Warehouse off A47
29	Redcroft
30	Redcroft House
31	Wolferton Cottages
32	Property to the north of receptor 31
33	Wolferton House
34	Residents in Highview, off The Street, Sporle
35	Residents in Sporle, east of The Street
36	Residents in Sporle, west of The Street
37	The Mill House
38	Railway Farm
39	Properties on Newton Road
40	Little Palgrave Hall
41	Properties at South Acre
42	Property off North Pickenham Road
43	Property off North Pickenham Road
44	Whitegate Farm
45	Necton Hall
46	Woodleigh House
47	Property off A47
48	Residents in North Necton
49	Sparham Hall
50	Boundary Farm House
51	Properties at Little Dunham
52	Squirrels Drey Apartment Rental
53	Tucks Farm

No.	Receptor or receptor group
54	Curds Hall Barn
55	Properties on Spicers Corner
56	Necton Onshore Substation
57	Top Farm
58	Wood Farm
59	Wood Farm Cottages
60	Indigo House
61	Moorgate Limited
62	RAF Auto Centre
63	Lyons Green Holiday Cottage
64	Lower Farm
65	Willow Farm
66	Residents on Station Road, Little Fransham
67	Pineapple Farm
68	Crowe's Hall
69	Salmon N.E Farm
70	Greenbanks Hotel
71	The White House/Greenacres
72	Jemaks/Kenley/Arjees/Old Chequers
73	Property opposite receptor 72 on Beeston Road
74	High Green Farm
75	Home Farm/Liberator Barn
76	Agricultural storage northeast of High Green
77	Canister Farm
78	Herne Farm
79	New Farm
80	Wellington Cottage
81	Alma Lodge
82	RAF Wendling
83	Park Farm
84	Holly Farm
85	The Old Rectory
86	Long View
87	Manor House
88	Tank Replacement Services
89	Holly House
90	Holly Farm
91	The Grange
92	Hillcrest Farm
93	Dale Farm
94	Sparrow Green Cottage

No.	Receptor or receptor group
95	Dillington Farm
96	Scarning Primary School
97	Podmore Farm
98	Gate House Farm
99	Longacres
100	Hazelmere
101	Scarning Dale
102	Abbey Farm
103	Catalinas
104	Old Toll House
105	Lords Meadow House/Ashness/Hafan Dawel/Field Cottage
106	Property down track off Dereham Road
107	Vine Cottage/Brandon House/Pemberton House/Malvern/Folly Acre/Cameron House/Hall Farm/Willow House/Ash Tree House
108	1-12 Dereham Road/Evenfell/Poplars
109	Fire Pit Camp
110	High House Cottage
111	Hulver Cottage
112	Spring Cottage
113	Dereham Firewood
114	Oakleigh
115	Park Farm
116	Church Farm/New Church Farm
117	1-25 Park Lane
118	Oak Manor Nursing Home
119	The Homestead/Berm House
120	Manor Farm Riding School
121	Brigwell House
122	Fenacre/Brookfield
123	Broadway Farm/Spurn Farm
124	Herne Cottages
125	Wood Farm
126	Abbey Farm/Smith's Farm
127	High House Farm
128	Nightingales/Lamorna/Bryli/Westlea
129	1-6 Andrews Way
130	Glen Cottage
131	The White House
132	Hedges Farm
133	The Park Farm
134	Elm Farm/Beech Farm/Willow Farm

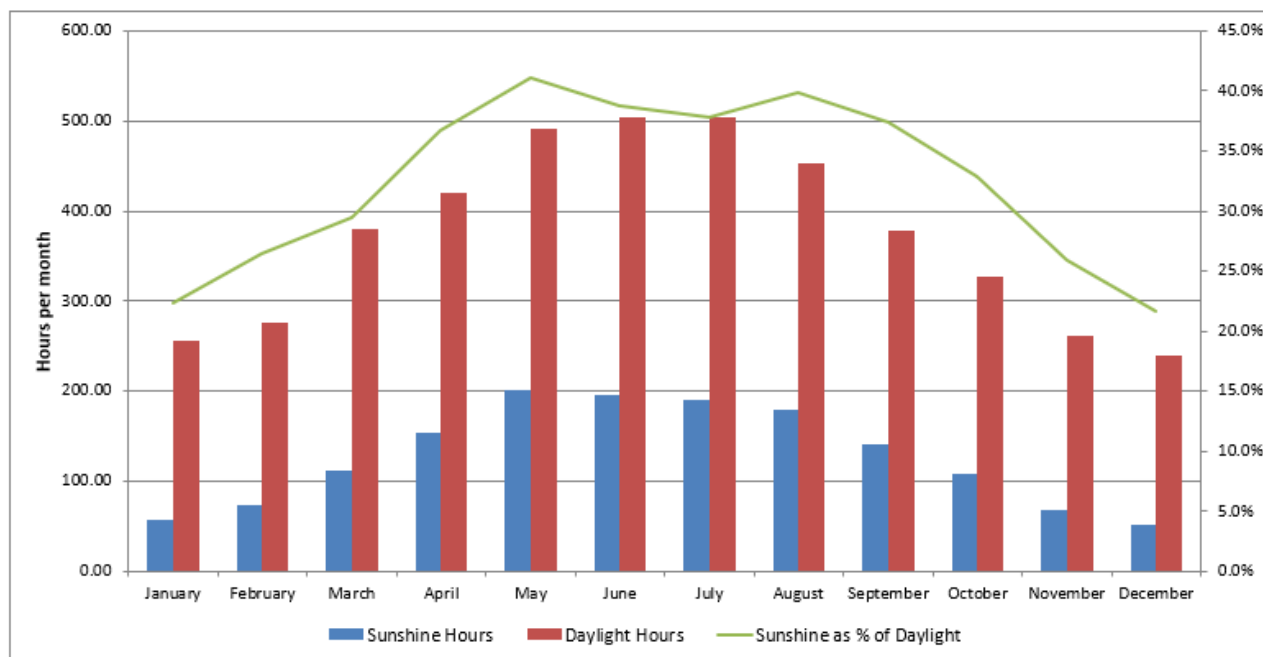
No.	Receptor or receptor group
135	Sycamore Farm
136	Daffy Green Farm
137	Thorpe Row Farm/Herne Hill Farm
138	White House Farm
139	Beechcroft
140	Old Hall Lodge
141	Wyrley Farm
142	Sunnyside Court
143	Shipdham ATCT (demolished but due to be reconstructed)
144	The Sourdough Company
145	Farm at Letton Green
146	Primroses Hotel/Wood Farm
147	RW Hill Farms
148	Manor Farm
149	The Pightle
150	GCF Hillier and Sons
151	Leys Farm
152	High House Farm
153	Water Treatment Works
154	Bradenham Hall
155	Bokenham Farm
156	Richardson Truck Services
157	Huntington Hall Farm
158	1 Church Street
159	West End Farm
160	Vale House
161	Nutts Barn
162	Property on Chapel Road
163	Scant's Corner
164	The Clock House
165	The Croft
166	Daleacres
167	Tanks UK
168	1 The St
169	Houghton Farm
170	35-58 Houghton Lane
171	Kings Row Farm
172	34 Station Road
173	14 Station Road
174	2 School Road
175	8 Lower Road

No.	Receptor or receptor group
176	Holme Hale Hall
177	Hill Farm
178	Grounds Cottage
179	Beech Croft
180	Properties on Green Lane
181	Ivy Cottages
182	High Farm
183	High Green Farm/Rose Hill
184	The Brye/High Green House/Newling Farm
185	Sunville/Unison
186	Siltech Racing
187	Mill Farm
188	White House
189	Orchard Cottage
190	Saham Grove Farm
191	Waite Farm Cottage
192	Quidney Farm
193	Allotment Farm
194	Cutbush Farm
195	Hannover Farm
196	Granary Fields
197	Seaview Cottage/The Willows/Widgeon Cottage/Westview
198	Homestead Farm
199	Panworth Hall
200	Ralli Farms
201	Panworth Hall Farm Cottages
202	171 Hills Road
203	Woodbottom Farm
204	Park Farm
205	Waite Cottage
206	Dye Farm/Coe Farm
207	Mount Pleasant Farm
208	Copeland's Farm
209	Booters Farm House
210	Oaklands
211	Brakehill Lodge Farm
212	College Farm
213	Daisy Farm
214	Rose Farm
215	Wood Farm
216	Fen Farm/Properties at Carbrooke

No.	Receptor or receptor group
217	Bush Farm
218	Properties at Ovington
219	Thatched Cottage/Properties on Pages Lane
220	Fagley/Lilywale/Maple Cottage
221	Properties on Hills Road
222	Hillside Mews
223	Properties at Fir Park
224	Trell Contractors
225	Lodge Farm
226	St Georges Lodge/Cottage
227	Saham Hall Keepers Cottage
228	Saham Hall
229	Dairy Cottages
230	Willow Cottage

Where can glint and glare occur?

- 9.6.2.6 Glint and glare can only occur when direct sunlight can reach the solar panels. Diffused lighting, caused by weather conditions (e.g. cloud, fog and mist) cannot cause glint and glare due to the low energy intensity of the light incident on the panels.
- 9.6.2.7 Inset 9-1 shows the total number of daylight hours available each month (red) based on the regional variation for the area. Also shown is the average number of hours of sunshine each month (blue) taken from the Meteorological Office data recorded at Cambridge (the closest active weather station to the Proposed Development for which historic sunshine data is available). Cambridge is approximately 65km from the Proposed Development and its weather is expected to be broadly representative of the weather conditions that the draft Order Limits will experience.
- 9.6.2.8 Inset 9-1 also shows the ratio of sunshine to daylight displayed as a percentage (green) for each month. As can be seen, the sunniest month on average was May, with 201 hours of sunshine. Even then, conditions suitable for glint events to occur are only expected to be present approximately 41% of the theoretical maximum. This is because the ratio of sunshine to daylight is approximately 41% at this time. During less sunny months, glint and glare events may occur for as little as 22% of the theoretical maximum because the ratio of sunshine to daylight is much less at these times.



Inset 9-1 Average Hours of Sunshine vs Daylight in Cambridge based on Historical Weather Data from UK Met Office

9.6.3 Future Baseline

9.6.3.1 The future baseline for Glint and Glare is expected to remain as existing in the absence of the Proposed Development. The likely evolution of the current baseline without the Proposed Development would be the continuation of agricultural practices.

9.6.3.2 In accordance with the methodology set out in Chapter 15 Cumulative Effects Assessment of this PEIR, the following developments are relevant to this assessment and have been considered present in the future baseline:

- Norfolk Vanguard (EN010079)
- Norfolk Boreas (EN010087)
- East Bilney Quarry (FUL/2023/0030 / C/3/2010/3028)
- Land to South of Field Lane (FUL/2023/0029)
- East Bilney Quarry (FUL/2023/0031)
- Land South of B1108 (FUL/2024/0041 / FUL/2020/0050)
- Dudgeon Onshore Substation (3PL/2012/0703/F)
- Land to the South of Lynn Road (FUL/2023/0047)

9.7 Design Principles, Embedded and Good Practice Measures

9.7.1 Design Principles

- 9.7.1.1 The Proposed Development is being designed with regard to a set of design principles, as described in the draft Design Approach Document (DAD).

9.7.2 Embedded and Good Practice Measures

- 9.7.2.1 Embedded measures are modifications to the design of a scheme, made during the pre-application phase, that are an inherent part of the design and do not require additional action to be taken. Good practice measures are standard approaches and actions undertaken to avoid or reduce environmental impacts in line with best practice guidance and legislative requirements.
- 9.7.2.2 The Proposed Development is currently evolving through an iterative design process. Measures for the Proposed Development relevant to glint and glare already committed to include:
- Construction
 - An appropriate buffer of at least 10m will be maintained between properties and construction works which have the potential to generate vibration and lighting.
 - Keeping construction lighting to the minimum luminosity necessary for safe working within construction compounds and working areas and where possible, fitting it with motion sensors to reduce the duration of potential light spill in night-time views.
 - Operation
 - Careful siting the Proposed Development in the landscape to avoid or reduce the loss of existing vegetation and siting solar PV modules and other above ground infrastructure to relate to existing landform and vegetation patterns to maximise landscape integration.
 - Identifying areas for the implementation of advanced mitigation planting to achieve earliest possible establishment and maximise benefits.
 - Existing hedgerows in poor condition or gappy will be reinforced with planting and managed where feasible.
 - Modern solar PV modules have an anti-reflective coating that gives the panels a dark colour with a textured finish. This feature reduces the potential of glint and glare effects occurring but cannot prevent effects entirely.
 - Retention of all mature trees, woodland blocks and hedgerow boundaries wherever practical within the Panel Areas.
 - New planting to provide visual screening, to break up the extent of development.

- The Proposed Development would not be lit. The exception would be at the substations, where sensor-triggered lighting will be needed for security/safety reasons. The substations would generally not be occupied by personnel overnight so the lighting would not be on continuously. The lighting infrastructure is expected to be approximately 10m in height.
- Decommissioning
 - Remove panels and frames in small sections to avoid leaving exposed metal to reflect; and
 - Measures as per the construction phase.

9.7.2.3 In addition, a suite of management plans will be in place for the Proposed Development, those relevant to Glint and Glare include:

- Outline Construction Environmental Management Plan
- Outline Landscape and Ecological Management Plan
- Outline Public Rights of Way Management Plan
- Outline Decommissioning Environmental Management Plan

9.7.2.4 These management plans incorporate embedded and good practice measures, as well as any further mitigation identified during the EIA.

9.7.2.5 Draft outline versions of these management plans are provided with this PEIR for review during statutory consultation. These will be updated and submitted with the DCO application to secure the commitments contained within. Appropriate Requirements will be included in the DCO application to ensure these management plans will be developed to full versions and submitted to the relevant planning authority for approval. This will take place prior to the commencement of relevant works and measures described in them are implemented.

9.8 Assessment of Effects

9.8.1.1 This assessment is a qualitative analysis of both fixed and tracked panels, to allow for design flexibility and further refinement of the panel angles and heights prior to finalising the detailed design of the Proposed Development.

9.8.2 Construction

9.8.2.1 The construction phase is considered across receptors, including road, rail and aviation receptors, as well as observation points, which represent dwellings and buildings in the surrounding area.

9.8.2.2 There are unlikely to be any significant reflections during the initial ground preparation phase, other than potentially from the windscreens of site vehicles. Construction is anticipated to be undertaken in sequential sections, hence different sections should provide screening from construction activities and will act as self-mitigation.

- 9.8.2.3 There may be potential for the mounting structures themselves to reflect sunlight. Often being made of steel and aluminium alloy, they are likely to have a higher reflectivity than the panels. The most likely time for this to occur would be before the panels are installed on the mounting structures. However, since the surface area of the mounting structures is small and the time between installation of the structures and mounting of the panels will be minimised, potential reflective effects are considered Negligible, which is **Not Significant**.
- 9.8.2.4 Numerical modelling of potential glint and glare effects from the mounting structures is outside of the software capability. Furthermore, impacts would be temporary and are unlikely to affect receptors. If, however, issues arise during construction, temporary screening would be used to mitigate glint and glare effects.
- 9.8.2.5 Some rail, road and aviation receptors are of high sensitivity. Impacts on such receptors during the construction phase would be temporary and the magnitude of impact is not quantifiable but is expected to be low. The overall significance of effect on rail, road and aviation receptors is Minor Adverse to Negligible, which is **Not Significant**.

9.8.3 Operation

- 9.8.3.1 During operation, effects and impacts of glint and glare will vary throughout the year as a result of changing daylight hours and weather patterns.
- 9.8.3.2 For this PEIR, a qualitative assessment is used to assess sensitivity of receptors. Table 9-10 draws conclusions on whether aviation receptors should be taken to further quantitative assessment. As is mentioned above, this quantitative assessment is not possible at this stage, as it relies specific defined design parameters, such as the angle of inclination and height of the panels. Since these are not currently set, the quantitative assessment will be provided as part of the ES submission, and a qualitative assessment has been undertaken in this PEIR.
- 9.8.3.3 Table 9-11 analyses the sensitivity of each transport, trail and PRow route receptor, considering both a fixed and tracked panel scenario. The same is then done for the fixed (observation point) receptors in Table 9-12. These analyses inform on whether the receptor should be taken to quantitative analysis in the ES. Conclusions on the sensitivity are based on parameters detailed in Table 9-4. In most cases it is not yet possible to conclude the magnitude of the impact or the significance of effect, without having undertaken the detailed modelling based on a fixed set of design parameters.
- 9.8.3.4 As is stated in Table 9-8, the PRow in Table 9-11 are inclusive of the wider network as well as the PRow mentioned.
- 9.8.3.5 Where the conclusion is for a receptor to be taken to further assessment denotes quantitative analysis as part of the ES.

Table 9-10 *Qualitative analysis of aviation receptor sensitivity*

No.	Receptor	Sensitivity/Further assessment requirements	Magnitude of impact	Significance of effect
AR1	RAF Marham	This receptor is 340m from the draft Order Limits. Both the sensitivity of this receptor and its proximity to the Panel Areas make visibility expected and quantitative assessment is necessary. In line with Table 9.4, the final approaches to the runways are considered to be of medium sensitivity. The ATCT is considered to be of high sensitivity (see further information on ATCT receptor in Table 9-12).	TBC – requires detailed modelling once design parameters are known	TBC
AR2	MoD Sculthorpe Training Area	It is understood that this site is no longer an active airfield but is still used by the military for exercises including some aviation operations. This receptor is at sufficient distance from the Panel Areas (>17km) that visibility is not expected, and operations are highly unlikely to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR3	East Winch Airstrip	This aviation receptor is more than 8km to the northwest of the Panel Areas which means that visibility from the aerodrome is not expected and, subject to further consultation with the airstrip operators, operations are not expected to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is assessed as low.	TBC – requires detailed modelling once design parameters are known	TBC
AR4	Boughton/Boughton North	This aviation receptor is approximately 7.5km to the southwest of the Panel Areas meaning that visibility is not expected from the aerodrome and operations are unlikely to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR5	Shipdham Airfield	This receptor is at a distance (<3km) from the Panel Areas that allows for potential visibility, hence further assessment is required. In line with Table 9.4, the final approaches to the runways are considered to be of medium sensitivity. The former RAF ATCT building was demolished in 2023 and is due to be reconstructed but it will no longer be an active ATCT when this happens.	TBC – requires detailed modelling once design parameters are known	TBC
AR6	Great Massingham Airfield	This aviation receptor lies approximately 12km from the Panel Areas indicating that visibility is not expected and operations are unlikely to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC

No.	Receptor	Sensitivity/Further assessment requirements	Magnitude of impact	Significance of effect
AR7	Felthorpe Airstrip	This aviation receptor is almost 20km from the Panel Areas meaning that visibility is not expected and operations are unlikely to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR8	Southery Airstrip	This aviation receptor is approximately 17.5km from the Panel Areas meaning that visibility is not expected and operations are unlikely to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR9	Old Buckenham Airfield	This aviation receptor is almost 20km to the southeast of the Panel Areas meaning that visibility is not expected and operations are unlikely to be impacted by glare effects of the Proposed Development. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR10	Little Snoring Airfield	At c.19.5 km from the nearest Panel Area, there are not expected to be any adverse effects on aviation assets. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR11	Holly Hill Farm Airstrip	At c.19.5 km from the nearest Panel Area, there are not expected to be any adverse effects on aviation assets. The sensitivity of the runways is low.	TBC – requires detailed modelling once design parameters are known	TBC
AR12	Blue Tile Farm Airstrip	This aviation receptor is no longer believed to be in active use.	N/A	N/A
AR13	Swanton Morley	This aviation receptor is no longer believed to be in active use.	N/A	N/A
AR14	Great Fransham Airfield	This receptor is c.1300m from the draft Order Limits. Both the sensitivity of this receptor and its proximity to the Panel Areas make visibility expected and quantitative assessment is necessary. In line with Table 9.4, the final approaches to the runways are considered to be of medium sensitivity	TBC – requires detailed modelling once design parameters are known	TBC

Table 9-11 *Qualitative analysis of route receptors within a 5km radius of the Panel Areas*

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
1	Mid Norfolk Railway/Dereham Station/Yaxham Station	The Mid Norfolk heritage railway line runs through the town of Dereham, with the closest stations to the Panel Areas being Dereham and Yaxham. The distance of closest approach between the Panel Areas and the railway line is 2737m and occurs at a location just south of the River Tud. There appears to be significant vegetation screening between the railway line and the Panel Areas in general, as well as screening from commercial and residential properties at Dereham. Hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
2	A1122 Swaffham Road	Visibility to the Panel Areas is expected as the hedgerow along the road is discontinuous.	High	Yes	Yes	TBC	TBC
3	Chalk Lane	The Panel Area is screened to the north by trees/vegetation hence there is limited visibility when travelling south along Chalk Lane. Vegetation thins upon reaching a track running across the road from RAF Marham. From this point on there is visibility of the Panel Area. Very minimal screening.	Medium	Yes	Yes	TBC	TBC
4	Narborough Hill	Undulating topography and vegetation between the road and Panel Areas mean no visibility.	Low	No	No	Negligible	Not Significant
5	W Acre Road/Narford Lane	Narford Lane becomes W Acre Road at the northwestern corner of the Panel Areas. It is well screened so there is not expected to be any visibility. W Acre Road borders a section of the Panel Area and despite there being hedgerows, the height is not sufficient to provide screening, so visibility is expected	Medium	Yes	Yes	TBC	TBC
6	A1065 Castle Acre Road	Low hedgerow with gaps means some visibility is expected when approaching the Panel Area from the north. Thicker hedgerows and trees after this mean visibility reduces. There is a small section where the road borders the Panel Area and visibility is further predicted.	High	Yes	Yes	TBC	TBC
7	A47	No visibility to Western Panel Area due to distance and vegetation, however there is some visibility on approach to W Acre Road. There is then a section of road that directly borders the Panel Area and due to	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
		varying vegetation density, visibility is predicted. Elevation of A47 increases over Castle Acre Road, so more visibility to the Panel Area from the A47 is predicted here. Low vegetation approaching the Central Panel Area; hence visibility is expected. Land then slopes down from A47, so there is potential for visibility. The residential area of Little Fransham provides screening following this. Visibility is expected where the A47 meets Love Lane. A broken tree line then borders the road so the Panel Area will be visible from the road. Some visibility to the Northern Panel Area also but more dense vegetation on this side. The Panel Area to the south of Scarning is generally well screened by forest and buildings, however there is potential for some visibility on the bridge over Dereham Road and for short sections following this. Visibility of the Eastern Panel Area is not expected due to the distance of A47.					
8	South Acre Road	Well screened by bank and hedgerows, hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
9	Palgrave Road	Clusters of hedges with some more consistent sections. Gaps mean visibility is predicted.	Medium	Yes	Yes	TBC	TBC
10	Sporle Road	There is visibility for a short section when travelling south to north along this road. Hedgerows line both sides of the road, however there are some gaps, and due to the proximity to two Panel Areas, visibility is expected.	Medium	Yes	Yes	TBC	TBC
11	Long Lane	This is part of PRoW RB39b, and since it borders the Panel Area, there is expected to be some visibility here.	Medium	Yes	Yes	TBC	TBC
12	Procession Lane	Short section after turn-off from Sporle Road where there is visibility due to sparse hedgerow. There is also potential for visibility further along the lane due to the Solar Array land sloping upwards slightly. Grange Farm and trees provide screening between the Panel Area further along this lane. Low chance of visibility when travelling in the other direction due to hedgerow screening.	Medium	Yes	Yes	TBC	TBC
13	Norwich Road	Well screened at Sporle due to residential buildings. Much of the road is well screened, however there may be glimpses of the Panel Area	Medium	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
		approaching the A47 from the north, as well as when travelling in the other direction.					
14	The Street	Visibility not expected due to screening from the A47.	Medium	No	No	Negligible	Not Significant
15	North Pickenham Road	Visibility to the Panel Area from N Pickenham Road is expected due to limited/low vegetation on the Solar Array border.	Medium	Yes	Yes	TBC	TBC
16	Dunham Road	Visibility appears unlikely due to distance from the Panel Area. However, vegetation at points is very low/minimal so glimpses of panels could occur.	Low	Yes	Yes	TBC	Not Significant
17	Tuns Road/Hale Road	Buildings in Necton provide screening of the Panel Area. Hale Road continues to run parallel with a Panel Area, however fields between the Panel Area and Hale Road slope upwards, meaning visibility is not expected here.	Low	No	No	Negligible	Not Significant
18	Station Road/Church Street/Bradenham Road	Some potential visibility of the Panel Area from this road receptor near the turning for SwS Broke. Visibility is further expected along Church Street and Bradenham Road due to distance and irregular vegetation screening.	Medium/Low	Yes	Yes	TBC	TBC
19	Dereham Road	Road runs to the north of the Eastern Panel Area. Visibility is expected here since there is no screening. Further visibility is likely at other Panel Areas due to irregularities in vegetation screening and proximity to the Panel Areas.	Medium	Yes	Yes	TBC	TBC
20	Shipdham Lane	This lane borders the Panel Areas in multiple locations, with many of these stretches having no vegetation screening, hence visibility is expected	Medium	Yes	Yes	TBC	TBC
21	Love Lane	This lane borders the Panel Areas with no screening, so visibility is expected.	Medium	Yes	Yes	TBC	TBC
22	Crown Lane	Visibility is not expected on this lane, due to screening at the Solar Array boundary itself.	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
23	Track between Bradenham and Crown Lane	Visibility is expected here due to gaps in hedgerows as well as areas of low vegetation.	Medium / Low	Yes	Yes	TBC	TBC
24	Goggles Lane	The lane runs through two areas of the Solar Array, and while there is some screening from vegetation, the proximity to the panels means visibility is likely.	Medium	Yes	Yes	TBC	TBC
25	Wood Lane	Visibility is expected along this lane due to it bordering the Panel Area with gaps in vegetation.	Medium	Yes	Yes	TBC	TBC
26	Bradenham Lane	This lane runs through multiple Panel Areas; hence visibility will occur at this receptor.	Medium	Yes	Yes	TBC	TBC
27	Hulver Street	Visibility is expected along this road due to the fact it borders the Panel Areas, and although there is some screening, the density and frequency of this is not sufficient to provide full screening.	Medium	Yes	Yes	TBC	TBC
28	Carr Lane	Visibility to the Panel Areas is not expected here due to screening from dense clusters of trees and hedgerows.	Medium	No	No	Negligible	Not Significant
29	New Lane	There is limited screening along this lane, with the Panel Areas being at a distance that would enable visibility.	Medium	Yes	Yes	TBC	TBC
30	Comar Lane	There is potential for visibility along this lane, as there is a section that runs through two Panel Areas, as well as bordering one area for over 500m.	Medium	Yes	Yes	TBC	TBC
31	Dale Road	Visibility is not expected at this road receptor due to screening from Dereham Road and associated hedgerows and trees.	Medium	No	No	Negligible	Not Significant
32	Coach Lane	The screening along this lane is consistent and dense enough to provide screening from the Panel Area, hence visibility is unlikely.	Medium	No	No	Negligible	Not Significant
33	Watery Lane	This lane is well screened by hedgerows and trees along its length as well as at the Solar Array boundary, however there is a short section where the lane borders the Panel Area and there is potential for visibility.	Medium / Low	Yes	Yes	TBC	TBC
34	Herne Lane	There appears to be a dense hedgerow along this lane that provides screening of the Panel Area, hence visibility is unlikely.	Low	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
35	Green Lane/Swan Lane	Visibility is expected along this lane due to minimal screening from vegetation and flat topography.	Low	Yes	Yes	TBC	TBC
36	Gooseacre Lane	This lane is screened by vegetation as well as properties at Thorpe Row so visibility to the Panel Area is not expected.	Low	No	No	Negligible	Not Significant
37	A1075	This road runs from Dereham to Watton with the distance of closest approach to a Panel Area being less than 1300m. Upon leaving Dereham to the south, the road is well screened by the residential area of Toftwood. Following this, hedgerows along the road provide screening in the direction of the Panel Area to the west. Vegetation then thins and there is some visibility to the Panel Area. When approaching Thorpe Row and Shipdham, visibility is not expected, due to the distance from the Panel Area as well as screening from properties. Leaving Shipdham, vegetation screening prevents visibility of the Panel Area. Distance to the Panel Area then increases and screening exists, so visibility is not expected on approach to Saham White. The Southern Panel Area is screened by properties at Saham Hills. This analysis highlights that certain sections of the road will require further assessment.	Medium	Yes	Yes	TBC	TBC
38	Church Lane	Visibility is not expected along this lane due to vegetation screening to the north, as well as from Bradenham Road to the west.	Low	No	No	Negligible	Not Significant
39	Hills Road/Long Road	There are numerous hedgerows and tree clusters at varying locations along this road that provide screening. Residential properties at Saham Hills provide further screening of the southern Solar Array.	Low	No	No	Negligible	Not Significant
40	Pages Lane	There appears to be sufficient hedgerow to provide screening between this lane and the Panel Area, as well as some screening from properties. Visibility is therefore not expected.	Medium	No	No	Negligible	Not Significant
41	Watton Road	The proximity of this road to the Panel Area, along with areas of low hedgerow make visibility possible and likely at certain locations.	Medium /Low	Yes	Yes	TBC	TBC
42	Beeston Road	Visibility is expected along this road due to the fact it borders the Panel Area, and although there is some screening, the density and frequency of this is not sufficient to provide full screening.	Medium	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
43	Honeypot Lane	Due to undulating land and a lack of screening on sections of this lane, there is potential for some visibility.	Low	Yes	Yes	TBC	TBC
44	Grange Road	Due to undulating land and a lack of screening on sections of this road as well as on Honeypot Lane, there is potential for some visibility.	Low	Yes	Yes	TBC	TBC
45	Southend	This road and residential area have limited visibility due to screening from vegetation, however on approach to the Panel Area from the north, chance of visibility increases. The road/track then borders the Panel Area for a section, so visibility is expected here.	Medium	Yes	Yes	TBC	TBC
46	Road off Hale Road/Church Street	There are sections of this road where screening is minimal, hence visibility to the Panel Area is likely and expected.	Medium	Yes	Yes	TBC	TBC
47	Road between Bradenham Road and Hills Road	Vegetation screening along this road varies in height and density, and as a result, there is chance of visibility to multiple Panel Areas.	Low	Yes	Yes	TBC	TBC
48	Track off A47	This track runs within 270m of the Panel Area, and while there is some vegetation screening, it is unlikely that it will fully inhibit visibility.	Medium /Low	Yes	Yes	TBC	TBC
49	Park Lane	There is potential for glimpses of the Panel Area along this lane, due to gaps in the hedgerows and vegetation.	Medium /Low	Yes	No	TBC	TBC
50	PRoW Beachamwell BR2	This PRoW is screened by South Acre Road to the south, which is between the path and Panel Area. Hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
51	PRoW Beachamwell FP4	Visibility is not likely for those using this path on foot, due to significant vegetation screening.	Low	No	No	Negligible	Not Significant
52	PRoW Sporle with Palgrave BR5	This PRoW runs through the Panel Area, hence there will be visibility of the panels from this path.	Low	Yes	Yes	TBC	TBC
53	PRoW Swaffham RB55	This PRoW runs through the Panel Area, hence there will be visibility of the panels from this path.	Low	Yes	Yes	TBC	TBC
54	PRoW Little Dunham FP2	This route appears well screened from dense forest vegetation hence visibility is not likely.	Low	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
55	PRoW Sporle with Palgrave BR8	There are sections of this route where vegetation is limited and there is potential for visibility to the Panel Area	Low	Yes	Yes	TBC	TBC
56	PRoW Scarning BOAT8	This route borders the Panel Area hence visibility is expected.	Low	Yes	Yes	TBC	TBC
57	PRoW Shipdham FP1	Limited vegetation screening around this network of PRoWs means visibility is likely and expected.	Low	Yes	Yes	TBC	TBC
58	Road leading from Dunnetts Close to PRoW Ashill RB11	Visibility is expected along this road due to the fact it borders the Panel Area and while there is some vegetation screening, it is not dense or tall enough to fully inhibit visibility.	Low	Yes	Yes	TBC	TBC
59	Permissive footpath between Dunnetts Close	Visibility is not expected along these routes due to screening from vegetation as well as Dunnetts Close	Low	No	No	Negligible	Not Significant
60	PRoW Ashill RB11	Multiple rows of hedgerows provide screening of the Panel Area hence visibility is not likely at this receptor.	Low	No	No	Negligible	Not Significant
61	PRoW Ashill FP7	Due to gaps in vegetation screening between this route and the Panel Area, there is potential for glimpses of the panels.	Low	Yes	No	TBC	TBC
62	PRoW South Acre RB6	Owing to the flat topography and limited vegetation screening, specifically along the section of this route northeast of Narford Lane, visibility is expected. The section of the route to the southwest of Narford lane is well screened.	Low	Yes	Yes	TBC	TBC
63	PRoW Bradenham FP1	This route is well screened by vegetation hence visibility is not expected.	Low	No	No	Negligible	Not Significant
64	PRoW Fransham RB7	This route is largely screened by vegetation and by Love Lane to the east, so as a result visibility is unlikely.	Low	No	No	Negligible	Not Significant
65	Nar Valley Long distance trail	There is a short section of this trail through Castle Acre Priory where there is chance of visibility, due the elevation of these ruins and undulating topography between the site and the Panel Area. Aside from this, distance and vegetation screening mean visibility is not expected along the rest of this trail.	Low	Yes	No	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
66	Peddars Way and Norfolk Coast Path National Trail	This trail borders the Panel Area for a short section south of Great Palgrave. Gaps in vegetation lend themselves to visibility here. Otherwise, the trail is well screened and is at a distance from Panel Areas that mean visibility is not expected.	Low	Yes	Yes	TBC	TBC
67	PRoW Beachamwell FP8	This PRoW is well screened by Bradenham Road as well as from vegetation, hence visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
68	White Road/ Beachamwell Road	This property is well screened by hedges lining the road, in the direction of the Panel Area, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
69	PRoW Beachamwell FP14	This PRoW is well screened by Bradenham Road as well as from vegetation, hence visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
70	PRoW Swaffham RB9	This receptor is not expected to have visibility to the panel areas nearby, due to screening from forest to the west and the A47 to the north.	Low	No	No	Negligible	Not Significant
71	PRoW Little Dunham FP2	This receptor is well screened by the A47 to the south and Dunham Road to the east, hence visibility to the panels is not expected.	Low	No	No	Negligible	Not Significant
72	PRoW Scarning	As with the receptors 70 and 71, there is not expected to be visibility from this route due to screening from the A47, as well as from vegetation and other roads.	Low	No	No	Negligible	Not Significant
73	PRoW Swaffham RB51	This receptor is screened by the A47 and Norwich road, as well as associated vegetation. Visibility is not expected.	Low	No	No	Negligible	Not Significant
74	PRoW Scarning FP5	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
75	PRoW Merton RB4	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
76	B1108	Distance from the panels and associated screening means visibility is not expected along this road receptor. Watton Road and Threxton Road provide screening.	Low	No	No	Negligible	Not Significant
77	PRoW Ashill FP1	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
78	PRoW Ovington FP1	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
79	PRoW Shipdham FP5	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
80	PRoW Dereham FP19	This receptor is north of the panels and is of a low sensitivity, hence glare will not affect users of the route.	Low	No	No	Negligible	Not Significant
81	River Road	This road is screened by planting along its border, and when this is considered with the flat topography and wider vegetation screening, means visibility to the panels is not expected.	Low	No	No	Negligible	Not Significant
82	Newton Road	This road joins Sporle Road north of the panels, hence glare effects will not occur along this road.	Low	No	No	Negligible	Not Significant
83	Sporle Road	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
84	Dereham Lane	There is potential for some visibility at this receptor due to its proximity to the Panel Area and gaps in vegetation screening along the road	Medium /Low	Yes	Yes	TBC	TBC
85	Station Road	This road is well screened in all directions, by vegetation as well as the A47. Hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
86	Beeston Lane	This road is well screened by vegetation in the direction of the panels hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
87	Chapel Lane	The A47 provides screening for this receptor, as well as from the residential area of Scarning. Hence visibility is not expected.	Low	No	No	Negligible	Not Significant
88	Wendling Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
89	Longham Road	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
90	Road between Sparrow Green and Bushy Common	Distance from the panels and associated screening, as well as the fact that a portion of the road is north of the panels means visibility is not expected here.	Low	No	No	Negligible	Not Significant
91	Ivy Todd Road	This road is well screened by hedgerows and trees; hence visibility is unlikely and not expected here.	Low	No	No	Negligible	Not Significant
92	Moor Lane	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
93	Road between Bradenham lane and receptor 26/23	There is potential for visibility at this receptor due to limited vegetation and planting in the direction of the panel area to the east.	Low /Medium	Yes	Yes	TBC	TBC
94	Road off Mill Street	This road is screened by residential properties as well as route receptor 29, New Lane, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
95	Halfmile Drift	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
96	Station Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
97	Church Lane (Bradenham)	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
98	Road between Ivy Todd and Bradenham	There appears to be significant screening between the panel area to the north and this receptor. Hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
99	Road between West End and Bradenham	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
100	Chapel Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
101	Ramm's Lane	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
102	Lower Road	The closest panel area to this route is south of the receptor; hence glare effects would not be experienced here.	Low	No	No	Negligible	Not Significant
103	Brown's Lane	This receptor is well screened by vegetation; hence visibility is not expected.	Low	No	No	Negligible	Not Significant
104	South Pickenham Road/Watton Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
105	Houghton Lane	This receptor is screened by vegetation as well as Hale Road and associated properties and vegetation. Hence visibility is not expected.	Low	No	No	Negligible	Not Significant
106	Shipdham Lane	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
107	Ovington Road	This road is screened by properties at Saham Toney hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
108	Ploughboy Lane	This road is screened by properties at Saham Toney as well as by Hills Road, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
109	King Row	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
110	Merton Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
111	Crow's Lane	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
112	The Green	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
113	Watton Road (Merton)	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
114	Road between Threxton Hill and Saham Toney	There may be some visibility along this road on approach to Saham Toney, due to the fact there is no vegetation screening along the road itself or on nearby routes.	Low /Medium	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
115	Watton Road (Great Cressingham)	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
116	Caudle Hill	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
117	Priory Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
118	Cressingham Road	This road appears well screened by vegetation, including hedgerows and trees, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
119	Swaffham Road (Ashill)	This route is well screened by properties in Ashill, as well as by clusters of vegetation, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
120	Pound Hill	This route is well screened by properties in Saham Toney and their associated vegetation and planting. Visibility is therefore not expected here.	Low	No	No	Negligible	Not Significant
121	Letton Road	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
122	Mile Road	As with route receptor 121, distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
123	Road between Daffy Green and Thorpe Row	There is likely to be some visibility of the panels from this receptor due to gaps in vegetation screening and proximity of the road to the Panel Area.	Low /Medium	Yes	Yes	TBC	TBC
124	Herne Lane	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
125	Reed Lane	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
126	Litcham Road (Gressenhall)	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
127	Stoney Lane	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
128	Litcham Road (Little Dunham)	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
129	Beachamwell Road	This road is well screened in the direction of the Panel Area, from both vegetation and infrastructure associated with RAF Marham. Therefore, visibility is not expected here.	Low	No	No	Negligible	Not Significant
130	Massingham Road	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
131	PRoW Shipdham RB7	This route is screened by Swan Lane and clusters of vegetation between the Panel Area and receptor; hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
132	PRoW Shipdham FP13	This route is well screened by residential properties associated with Shipdham and as a result visibility is not expected at the receptor.	Low	No	No	Negligible	Not Significant
133	PRoW Cranworth BR1	Distance from the panels and associated screening means visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
134	PRoW Shipdham FP17	Visibility is not expected at this receptor, due to screening from dense clusters of vegetation between Panel Area and receptor, as well as screening from route receptor 47.	Low	No	No	Negligible	Not Significant
135	National Cycle Network	This route runs to the east of the Panel Area, with certain sections bordering the Panel Areas. Hence there is likely to be some visibility for users of this cycle route.	Low /Medium	Yes	Yes	TBC	TBC
136	PRoW Sporle with Palgrave BR2	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further quantitative assessment necessary to determine Significance		Magnitude of impact	Significance of effect
				Tracked panels	Fixed panels		
137	PRoW Little Dunham FP1	This receptor is north of the panels hence glare effects will not occur here, unless tracker panels are used. If this is the case, visibility could occur.	Low	Yes	No	TBC	TBC
138	PRoW Swaffham FP13	This route runs through a Panel Area; hence visibility will occur at this receptor.	Medium	Yes	Yes	TBC	TBC
139	PRoW Wendling FP2	There is potential for some visibility along this route, due to the proximity of the Panel Area to the west of the receptor and gaps in vegetation.	Low /Medium	Yes	Yes	TBC	TBC

Table 9-12 Qualitative analysis of fixed (observation point) receptors within a 5km radius of the Proposed Development

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
1	Residents in Marham	Residential properties and associated buildings are well screened from trees and vegetation, as well as from Upper Marham suburbia.	Low	No	No	Negligible	Not Significant
2	Residents in Upper Marham	The western boundary of the Panel Area on Chalk Lane has some vegetation, but it is limited. RAF Marham itself would also provide some screening, however upper floors in residential properties, particularly the eastern side of the area, may have visibility to the draft Order Limits.	Low	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
3	R&S Engineering Motor Services	Visibility is not expected due to distance from the Panel Area and vegetation screening.	Low	No	No	Negligible	Not Significant
4	Little Abbey Farm	Receptor is screened by hedgerows and vegetation, so visibility is not expected.	Negligible	No	No	Negligible	Not Significant
5	Smeeth Farm	Property is screened by dense hedgerows immediately south of the Western Panel Array, as well as other hedgerows and trees between the Panel Area and the property.	Medium	No	No	Negligible	Not Significant
6	St Andrew's Glebe Farm	Visibility not expected at this property due to screening from Narborough Hill and associated vegetation.	Low	No	No	Negligible	Not Significant
7	Abbey Barn Wedding Venue	Main property is outside of ZTV, however properties nearby on Chapel Lane fall within ZTV. Limited screening of upper floors in immediate vicinity of the houses, however due to distance and screening at a greater distance away, visibility is not predicted.	Low	No	No	Negligible	Not Significant
8	Sunnyholme on Chapel Lane	Limited screening of upper floors however due to distance and screening at a greater distance away, visibility is not predicted.	Low	No	No	Negligible	Not Significant
9	Hill Farm, Barton Bendish	Visibility not expected due to distance, topography and vegetation screening.	Negligible	No	No	Negligible	Not Significant
10	RAF Marham ATCT	Visibility is expected due to proximity of the Panel Area, lack of screening and height of the tower.	High	Yes	Yes	TBC	TBC
11	Warren's Barn	There appears to be some screening from trees and hedgerows at the front border of the property, yet there is still potential for visibility on upper floors.	Medium	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
12	Chalk Farm	Dense sections of trees provide screening for much of the Panel Area; however, the residential property has some visibility due to higher elevation and gaps in trees.	Medium	Yes	Yes	TBC	TBC
13	Swaffham Raceway Club	Receptor is well screened by dense forest; hence visibility will not occur.	Medium	No	No	Negligible	Not Significant
14	Great Friars Farm and Future BioGas Swaffham	Limited visibility from this receptor to the Western Panel Area due to screening from vegetation and the A47. Groups of trees to the east of this Panel Area will also provide screening to Eastern Panel Area.	Medium	No	No	Negligible	Not Significant
15	Little Grey Friars' Thornes	Some vegetation acts as screening for this receptor; however, this is inconsistent. Hence there is potential for visibility from upper floors.	Medium	Yes	Yes	TBC	TBC
16	2 W Acre Road	This residential property borders the site and while there is some vegetation around the property, it would not provide full screening of the Panel Area.	Medium	Yes	Yes	TBC	TBC
17	Town Farm House/Peppers Cottage	Visibility is not expected at this receptor due to distance from the Panel Area as well as vegetation screening.	Medium	No	No	Negligible	Not Significant
18	Breckland Meadows Touring Park	The A47 provides screening for this receptor hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
19	Waitrose Carpark/North Swaffham residential area	There is some visibility to adjacent fields, however both the A47 and vegetation provide screening of the Panel Area hence visibility is unlikely.	High	No	No	Negligible	Not Significant
20	GE BE Transport	This commercial enterprise is surrounded by trees, however due to the proximity to the	Low	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		Panel Area there is still potential for some visibility.					
21	The Splashes Campsite	Campsite elevation is lower than that of the Panel Area, with partial screening from a land bank. Hence visibility is not likely.	High	No	No	Negligible	Not Significant
22	Property off Southacre Road to the south	There is potential for visibility as the property is isolated from any other buildings and associated screening. There is some vegetation, however its height and density are not sufficient to provide full screening.	High	Yes	No (north of Panel Area)	TBC	TBC
23	Great Palgrave estate	While there is some ground-level screening around this property, visibility from upper floors is likely.	High	Yes	No (north of Panel Area)	TBC	TBC
24	Properties on Palgrave Road	While some vegetation exists between these properties, it is not dense enough to provide screening, especially considering the proximity to the Panel Area.	High	Yes	Yes	TBC	TBC
25	Property off Palgrave Road, Palgrave Hall	Gaps in trees and hedgerows mean there is potential for visibility at this property.	High	Yes	Yes	TBC	TBC
26	Grange Farm Grain Store	Visibility is not expected here due to dense trees between buildings and the Solar Array boundary.	Medium	No	No	Negligible	Not Significant
27	Mill Cottage	The property itself has hedgerows and vegetation; however, they would not be sufficient in providing screening to upper floors of the house. Hence visibility is expected here.	High	Yes	Yes	TBC	TBC
28	Fuel Station/Amazon Warehouse off A47	There is potential for visibility here due to irregular hedgerows and trees.	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
29	Redcroft	There is limited screening at the back of the property, however screening on the eastern and western border of the property prevent visibility.	High	No	No	Negligible	Not Significant
30	Redcroft House	Receptor is screened by trees on the western side, hence visibility is unlikely, given the distance to the Panel Area and this screening.	Medium	No	No	Negligible	Not Significant
31	Wolferton Cottages	Property is well screened to the west and east, so visibility of the Panel Area is not expected	Medium	No	No	Negligible	Not Significant
32	Property to the north of receptor 31	There is potential for visibility at this property, as while there is some screening, there are also gaps in trees and hedgerows.	Medium	Yes	Yes	TBC	TBC
33	Wolferton House	Despite some screening, this property is likely to have visibility, as it has 3 floors, and vegetation would be insufficient at providing full screening.	High	Yes	Yes	TBC	TBC
34	Residents in Highview, off the St	There is no screening of the fields behind these houses, so visibility is predicted, most likely from upper floors given the distance from the Panel Area.	High	Yes	Yes	TBC	TBC
35	Residents in Sporle, east of the St	Potential for visibility at properties in Hill's Close and Priory Close as these areas are closest to the Solar Array boundary.	High	Yes	Yes	TBC	TBC
36	Residents in Sporle, west of the St	Potential for visibility at properties in Hill's Close and Priory Close as these areas are closest to the Solar Array boundary.	High	Yes	Yes	TBC	TBC
37	The Mill House	This receptor is screened by Sporle to the east and field boundary hedgerows to the east.	Medium	No	No	Negligible	Not Significant
38	Railway Farm	Visibility is unlikely at this receptor due to significant vegetation screening.	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
39	Properties on Newton Road	There is no screening at this property, however a thick cluster of hedges between the Panel Area and the property means visibility is unlikely.	Medium	No	No (north of Panel Area)	Negligible	Not Significant
40	Little Palgrave Hall	There appears to be sufficient screening from hedgerows and trees, as well as from receptor 23, hence visibility is not predicted,	Medium	No	No (north of Panel Area)	Negligible	Not Significant
41	Castle Acre Priory and Castle	There appears to be some visibility as far as the A47 and Swaffham from the top of Castle Acre Castle as well as Castle Acre Priory. The elevation of these historical sites lends itself to visibility of the Panel Area.	Low	Yes	No (north of Panel Area)	TBC	TBC
42	Property off North Pickenham Road	This property is partially screened to the east and west, however there is likely to be visibility to the Panel Area, due to the flat, arable topography in between.	Medium	Yes	Yes	TBC	TBC
43	Property off North Pickenham Road	The property is mostly surrounded by hedgerows and trees, apart from in the direction of the Panel Area. Therefore, from upper floors of the property, visibility is possible.	Medium	Yes	Yes	TBC	TBC
44	Whitegate Farm	Property is well screened by trees, however due to the proximity of the Panel Area and potential gaps in vegetation, visibility may occur.	High	Yes	Yes	TBC	TBC
45	Necton Hall	Dense pockets of forest between the property and the Panel Area mean visibility is not expected.	Medium	No	No	Negligible	Not Significant
46	Woodleigh House	Property is well screened to the west by trees and vegetation. There may, however, be some visibility to the north where the Panel Area	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		border continues, and the property lacks screening.					
47	Property off A47	There is potential for some visibility from the property to the southeastern side of the Panel Area.	Medium	Yes	Yes	TBC	TBC
48	Residents in North Necton	Visibility at ground level is not expected due to multiple rows of hedgerow screening and a denser section of forest. However, from upper floors there may be visibility to the Panel Area.	Medium	Yes	Yes	TBC	TBC
49	Sparham Hall	There is potential for visibility to the Panel Area, as vegetation screening is not constant and at a low level.	Medium	Yes	Yes	TBC	TBC
50	Boundary Farm House	There is potential for some visibility at the north-eastern corner of the Panel Area, where vegetation is low.	Medium	Yes	Yes	TBC	TBC
51	Properties at Little Dunham	There is a dense collection of trees that provides screening for much of the northern border of the Panel Area, however there may still be some visibility to the eastern side from this property.	Medium	Yes	No (north of Panel Area)	TBC	TBC
52	Squirrels Drey Apartment Rental	Due to distance and vegetation screening, visibility is not expected here.	Low	No	No (north of Panel Area)	Negligible	Not Significant
53	Tucks Farm	There is limited screening at this property, however due to it being at a distance greater than 3km away from the Panel Area, with tracks, hedgerows and vegetation in between, visibility is unlikely.	Low	No	No (north of Panel Area)	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
54	Curds Hall Barn	This wedding venue is screened from the Panel Area to the west by vegetation on the property. There also appears to be sufficient vegetation between the property and the Panel Areas to the east to impede visibility.	Low	No	No	Negligible	Not Significant
55	Properties on Spicers Corner	There appears to be sufficient vegetation screening between the properties and the Panel Area. Further screening from the A47 is also likely.	Medium	No	No	Negligible	Not Significant
56	Necton Onshore Substation	Visibility is unlikely due to vegetation bordering the Panel Area.	Medium	No	No	Negligible	Not Significant
57	Top Farm	There is potential for visibility at this property due to a lack of consistent vegetation between the Panel Area and the property as well as its proximity to the Panel Area (less than 800m).	Medium	Yes	Yes	TBC	TBC
58	Wood Farm	Visibility is expected at this receptor, due to it being surrounded by land forming part of the Panel Area.	High	Yes	Yes	TBC	TBC
59	Wood Farm Cottages	Despite this property bordering the Panel Area, there appears to be significant screening from vegetation. Furthermore, the windows of the property do not face the Panel Area. Hence visibility is unlikely.	High	No	No	Negligible	Not Significant
60	Indigo House	There is potential for visibility at this property, due to the topography and varying amounts of screening.	Medium	Yes	Yes	TBC	TBC
61	Moorgate Limited	There are some areas of dense vegetation/forest between this receptor and the Panel Area, however gaps between these areas mean visibility is possible.	Medium	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
62	RAF Auto Centre	Visibility is unlikely due to the warehouse building not having upper floors, as well as significant screening from vegetation.	Medium	No	No	Negligible	Not Significant
63	Lyons Green Holiday Cottage	Given the proximity of the Panel Area to this property, as well as gaps in hedges and vegetation, there is likely to be some visibility to the panels.	High	Yes	Yes	TBC	TBC
64	Lower Farm	Considering both the proximity of the Panel Area to this property, as well as the scattered nature of the vegetation, visibility is likely.	High	Yes	Yes	TBC	TBC
65	Willow Farm	This property borders the Panel Area, so despite some trees and vegetation on the property, visibility is likely.	High	Yes	Yes	TBC	TBC
66	Residents on Station Road, Little Fransham	Trees line the gardens of these properties, with more vegetation further afield also. As a result, visibility is not expected.	Medium	No	No	Negligible	Not Significant
67	Pineapple Farm	Screening from the A47 to the southeast, as well as from vegetation to the east means visibility is not likely at this property.	Medium	No	No	Negligible	Not Significant
68	Crowe's Hall	Property is well screened by vegetation hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
69	Salmon N.E Farm	There is dense forest along Beeston Road between the Panel Area and the farm, hence it is well screened, and visibility is not likely.	High	No	No	Negligible	Not Significant
70	Greenbanks Hotel	There is minimal screening of the Panel Area hence visibility is expected.	High	Yes	Yes	TBC	TBC
71	The White House/Greenacres	There is likely to be some visibility at this cluster of properties, due to the proximity of the Panel Area.	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
72	Jemaks/Kenley/Arjees/Old Chequers	The Panel Area is visible from these properties on Beeston Road. Vegetation on the road is thin and not consistent.	High	Yes	Yes	TBC	TBC
73	Property opposite receptor 72 on Beeston Road	There is visibility to the Panel Area from this property, as it borders the area and there is limited screening.	High	Yes	Yes	TBC	TBC
74	High Green Farm	There appears to be dense forest and vegetation between the Panel Area and this property and visibility will be greatly reduced by this. Due to uncertainties around whether this vegetation provides full screening, and considering the proximity to the Panel Area, it is advisable to proceed with further assessment of this receptor.	High	Yes	No (north of Panel Area)	TBC	TBC
75	Home Farm/Liberator Barn	This property is well screened by rows of hedgerows and trees, hence visibility to the Panel Area is not expected.	High	No	No	Negligible	Not Significant
76	Agricultural storage northeast of High Green	There are hedgerows bordering the Panel Area that would provide screening for this property and since it is single storey, visibility is not expected.	Medium	No	No	Negligible	Not Significant
77	Canister Farm	Property is screened by agricultural barns to the south, as well as vegetation on the property.	Medium	No	No (north of Panel Area)	Negligible	Not Significant
78	Herne Farm	Clusters of hedgerows and vegetation provide sufficient screening for this property, as well as for others in the vicinity.	Medium	No	No (north of Panel Area)	Negligible	Not Significant
79	New Farm	Screening is provided by trees on the property, as well as vegetation between the property and Panel Area.	Low	No	No (north of Panel Area)	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
80	Wellington Cottage	The topography between the Panel Area, as well as hedgerows and vegetation, mean visibility is not expected at these properties.	Medium	No	No	Negligible	Not Significant
81	Alma Lodge	Property is well screened by Dereham Road and associated vegetation planting.	Medium	No	No	Negligible	Not Significant
82	RAF Wendling	The distance of this receptor from the Panel Area (1.28km), as well as significant vegetation between this receptor and the Panel Area impedes any visibility.	Medium	No	No (north of Panel Area)	Negligible	Not Significant
83	Park Farm	This receptor is well screened by sections of dense forest, as well as trees on the property itself.	Medium	No	No (north of Panel Area)	Negligible	Not Significant
84	Holly Farm	The distance from the Panel Area, combined with hedgerows and areas of dense forest between the farm and Panel Area make visibility unlikely.	Low	No	No (north of Panel Area)	Negligible	Not Significant
85	The Old Rectory	This property off Honeypt Lane is well screened by trees hence visibility is not expected.	Low	No	No (north of Panel Area)	Negligible	Not Significant
86	Long View	This receptor is screened by vegetation so there is unlikely to be visibility to the Panel Area.	Medium	No	No	Negligible	Not Significant
87	Manor House	There is potential for visibility at this property, due its proximity to the Panel Area, as well as irregularity in the vegetation between the areas in question.	High	No	No (north of Panel Area)	Negligible	Not Significant
88	Tank Replacement Services	Visibility to the Panel Area is unlikely due to the dense forest surrounding the receptor, as well screening by the A47 and associated vegetation.	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
89	Holly House	Visibility is not expected, as the A47 provides screening, as well as residential buildings in Wendling.	Medium	No	No	Negligible	Not Significant
90	Holly Farm	Hedgerows on Honeypot Lane provide screening for this property hence visibility is unlikely.	Medium	No	No	Negligible	Not Significant
91	The Grange	This receptor is screened by clusters of hedgerows and vegetation, as well as other properties.	Medium	No	No	Negligible	Not Significant
92	Hillcrest Farm	When considering topography, vegetation and distance from the Panel Area, it is unlikely that there will be visibility from this property.	Medium	No	No	Negligible	Not Significant
93	Dale Farm	The same assumption as was made with OP 92 can be made here, hence visibility is not predicted.	Medium	No	No	Negligible	Not Significant
94	Sparrow Green Cottage	The same assumption as was made with OP 92 can be made here, hence visibility is not predicted.	Medium	No	No (north of Panel Area)	Negligible	Not Significant
95	Dillington Farm	The same assumption as was made with OP 92 can be made here, hence visibility is not predicted.	Negligible	No	No (north of Panel Area)	Negligible	Not Significant
96	Scarning Primary School	Dereham Road and its associated vegetation, as well as the distance from the Panel Area mean visibility is not expected at this receptor.	Low	No	No	Negligible	Not Significant
97	Podmore Farm	This receptor is screened by the A47 and vegetation, so visibility is not predicted.	Medium	No	No	Negligible	Not Significant
98	Gate House Farm	Numerous roads, tracks and lanes and their associated vegetation provide screening for	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		this property; hence visibility of the Panel Area is unlikely.					
99	Longacres	This receptor is well screened on both sides by trees and hedgerows on the property itself.	Medium	No	No	Negligible	Not Significant
100	Hazelmere	There is limited vegetation in the immediate vicinity of this receptor, however due to it being a bungalow, and the existence of hedgerows and trees further afield, visibility to the Panel Area is not expected.	Medium	No	No	Negligible	Not Significant
101	Scarning Dale	The property itself has significant hedgerows and trees, providing screening from the Panel Area.	High	No	No	Negligible	Not Significant
102	Abbey Farm	It is likely that vegetation screening from Dereham Road, as well as on the property itself, will prevent visibility to the Panel Area.	Medium	No	No	Negligible	Not Significant
103	Catalinas	There is some screening on this property, however due to the undulating topography of the Panel Area, visibility is likely.	High	Yes	Yes	TBC	TBC
104	Old Toll House	While there is some screening of the Panel Area at this property, gaps in vegetation mean visibility is possible, particularly from upper floors of the house.	High	Yes	No (north of Panel Area)	TBC	TBC
105	Lords Meadow House/Ashness/Hafan Dawel/Field Cottage	There is limited screening between this cluster of properties and the Panel Area, hence visibility is expected.	High	Yes	Yes	TBC	TBC
106	Property down track off Dereham Road	The property borders the Panel Area to the south and the west, as well as being within 200m of the boundary to the east. There is minimal vegetation at this location, hence visibility is expected.	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
107	Vine Cottage/Brandon House/Pemberton House/Malvern/Folly Acre/Cameron House/Hall Farm/Willow House/Ash Tree House	This receptor is a group of properties along a track off Dereham Road. Visibility is expected here due to a lack vegetation and general screening, as well as the proximity to the Panel Area (less than 200m).	High	Yes	Yes	TBC	TBC
108	1-12 Dereham Road/Evendell/Poplars	Despite many of the properties closest to the Panel Area being bungalows, hence reducing the likelihood of visibility from windows, there is still some potential for visibility at this receptor due to gaps in vegetation.	High	Yes	Yes	TBC	TBC
109	Fire Pit Camp	This events venue is spread across a meadow that borders the Panel Area. Despite vegetation and hedgerows between the two areas, it would not be sufficient at providing full screening, largely due to the fact that the receptor is spread across a wide area. Hence visibility is expected at this receptor.	High	Yes	Yes	TBC	TBC
110	High House Cottage	This property borders the Panel Area with limited screening, so visibility is expected.	High	Yes	Yes	TBC	TBC
111	Hulver Cottage	This receptor is within 100m of the Panel Area, and while there is some screening from hedgerows and trees, it is unlikely this will be sufficient for the upper floors of the house.	High	Yes	Yes	TBC	TBC
112	Spring Cottage	Vegetation on Dereham Road provides significant screening for this property, however visibility from upper floors is likely.	High	Yes	Yes	TBC	TBC
113	Dereham Firewood	This receptor borders the Panel Area with limited screening; hence visibility is expected.	High	Yes	Yes	TBC	TBC
114	Oakleigh	This property is adjacent to the Panel Area with is no screening, hence visibility will occur.	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
115	Park Farm	Visibility to this receptor will occur, due to gaps in vegetation and its proximity to the Panel Area.	High	Yes	No (north of Panel Area)	TBC	TBC
116	Church Farm/New Church Farm	The proximity of this receptor to the Panel Area, as well as limited vegetation screening means there will be visibility from the property.	High	Yes	Yes	TBC	TBC
117	1-25 Park Lane	Visibility is expected at these properties, particularly from upper floors, due to limited vegetation screening.	High	Yes	No (north of Panel Area)	TBC	TBC
118	Oak Manor Nursing Home	Visibility is expected at these properties, particularly from upper floors. While there is some screening in the form of hedgerows and trees, it will not completely impede visibility to the Panel Area.	High	Yes	No (north of Panel Area)	TBC	TBC
119	The Homestead/Berm House	These properties are well screened by dense trees hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
120	Manor Farm Riding School	Visibility is not expected here due to the relatively flat topography as well as screening from trees.	Medium	No	No	Negligible	Not Significant
121	Brigwell House	Visibility is not expected here due to the relatively flat topography as well as screening from trees.	Medium	No	No	Negligible	Not Significant
122	Fenacre/Brookfield	Considering distance from the Panel Area, vegetation screening as well as screening from other properties, it can be concluded that visibility at this receptor is unlikely.	Medium	No	No	Negligible	Not Significant
123	Broadway Farm/Spurn Farm	This receptor represents a number of businesses, namely T.E Joinery, SCS Accounting Solutions Limited and Premier Caravan Services. The land appears well	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		screened by hedgerows and trees in the immediate vicinity hence visibility is not expected.					
124	Herne Cottages	Visibility is not expected here due to vegetation screening as well as flat topography.	Medium	No	No	Negligible	Not Significant
125	Wood Farm	Due to distance from the Panel Area, this receptor is well screened by vegetation and other properties, hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
126	Abbey Farm/Smith's Farm	This property appears well screened by vegetation on the land itself, as well as hedgerows further afield, hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
127	High House Farm	A combination of property and vegetation screening makes visibility to this receptor unlikely.	Medium	No	No	Negligible	Not Significant
128	Nightingales/Lamorna/Bryli/Westlea	As with OP 127, a combination of property and vegetation screening makes visibility to this receptor unlikely.	Low	No	No	Negligible	Not Significant
129	1-6 Andrews Way	As with OP 127, a combination of property and vegetation screening makes visibility to this receptor unlikely.	Negligible	No	No	Negligible	Not Significant
130	Glen Cottage	There appears to be dense forest between this receptor and the Panel Area, hence visibility is unlikely.	Medium	No	No	Negligible	Not Significant
131	The White House	Due to distance from the Panel Area as well as vegetation screening, it is unlikely that there will be visibility at this receptor.	Low	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
132	Hedges Farm	Due to limited vegetation along Green Lane, which runs between the Panel Area and the receptor, as well as at the receptor itself, there is potential for visibility from this property.	Medium	Yes	Yes	TBC	TBC
133	The Park Farm	Given the hedgerows and trees bordering the lane that these properties are on, as well as the flat topography, visibility is not expected.	Medium	No	No	Negligible	Not Significant
134	Elm Farm/Beech Farm/Willow Farm	There is potential for visibility at this receptor due to limited vegetation screening.	Medium	Yes	Yes	TBC	TBC
135	Sycamore Farm	There is potential for visibility at this receptor, since the land is undulating with limited vegetation screening.	Medium	Yes	Yes	TBC	TBC
136	Daffy Green Farm	The proximity of this receptor to the Panel Area means there is potential for visibility from some areas of this property, despite some screening from tree clusters.	Medium	Yes	Yes	TBC	TBC
137	Thorpe Row Farm/Herne Hill Farm	There are two properties at this receptor, both bordering the Panel Area. As a result, visibility is expected.	High	Yes	Yes	TBC	TBC
138	White House Farm	This receptor borders the Panel Area, and the screening is not enough to prevent visibility.	High	Yes	Yes	TBC	TBC
139	Beechcroft	The vegetation along Shipdham Lane as well as at the property itself provides significant screening, however, due to its proximity to the Panel Area, there is still potential for visibility in certain locations.	High	Yes	Yes	TBC	TBC
140	Old Hall Lodge	One of the properties at this receptor a two-storey building, and despite some screening from trees and hedgerows, visibility would be possible, from upper floors in particular.	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
141	Wyrley Farm	This receptor is well screened from the Panel Area to the north by vegetation and other properties. There is also unlikely to be visibility to the Panel Area to the west, due to a cluster of dense trees between the receptor and panels.	Medium	No	No	Negligible	Not Significant
142	Sunnyside Court	Clusters of vegetation as well as screening from other properties make visibility to the Panel Area unlikely.	Medium	No	No	Negligible	Not Significant
143	Shipham ATCT	This receptor is well screened by other buildings and is at a distance from the Panel Area where visibility is not expected.	High	No	No	Negligible	Not Significant
144	The Sourdough Company	As with OP 143, the distance of this receptor from the Panel Area, with Shipham properties and buildings in between to provide screening, means visibility is not expected.	Negligible	No	No	Negligible	Not Significant
145	Farm at Letton Green	As with OP 143, the distance of this receptor from the Panel Area, with Shipham properties and buildings in between to provide screening, means visibility is not expected.	Low	No	No	Negligible	Not Significant
146	Primroses Hotel/Wood Farm	This receptor is well screened by dense hedgerows and trees, so visibility to the Panel Area is not likely.	Medium	No	No	Negligible	Not Significant
147	RW Hill Farms	There appear to be significant clusters of trees and hedgerows between this receptor and the Panel Area, as well as hedgerows along Comar Lane. As a result, visibility is not expected at this property.	High	No	No	Negligible	Not Significant
148	Manor Farm	Gaps in the hedgerow at the Panel Area boundary align with this receptor; hence there	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		is likely to be visibility across the field in between and to the panels.					
149	The Pightle	This property is a bungalow, however there is no screening in the direction of the Panel Areas to the north but also panels to the southwest, and due to the proximity of the areas of interest to the receptor, visibility is expected.	High	Yes	Yes	TBC	TBC
150	GCF Hillier and Sons	The topography and lack of vegetation screening lends itself to visibility from this receptor to the Panel Area.	High	Yes	Yes	TBC	TBC
151	Leys Farm	The undulating topography and gaps in vegetation make visibility likely at this property.	High	Yes	Yes	TBC	TBC
152	High House Farm	This receptor is surrounded by Solar Array boundaries, and while there are some areas of forest and vegetation that provide some screening, it is not sufficient in preventing visibility fully.	High	Yes	Yes	TBC	TBC
153	Water Treatment Works	There is potential for visibility at this receptor due to inconsistent hedgerow and vegetation heights between the property and Panel Area.	High	Yes	Yes	TBC	TBC
154	Bradenham Hall	This property is well screened by dense forest and trees; hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
155	Bokenham Farm	There is potential for some visibility at these properties, particularly from upper floors. Despite some vegetation and undulations that will partially reduce visibility, the land is arable field, so there is limited vegetation overall.	Medium	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
156	Richardson Truck Services	Rising topography in the direction of the Panel Area, as well as single storey warehouse buildings compromising the receptor means that visibility is unlikely.	Medium	No	No	Negligible	Not Significant
157	Huntington Hall Farm	This property is partially screened by a cluster of trees and gently rising topography, however there may be some visibility from upper floors.	Medium	Yes	Yes	TBC	TBC
158	1 Church Street	There is some screening from vegetation both at the property and at the Panel Area boundary, and since the property (converted bungalow) and church nearby have limited means to observe from height, visibility is not expected.	Medium	No	No	Negligible	Not Significant
159	West End Farm	Properties in West End are well screened by a thick line of hedgerows running to the north towards the Panel Area, hence visibility is not likely at this receptor.	Medium	No	No	Negligible	Not Significant
160	Vale House	Rows of hedgerows between the receptor and Panel Area provide screening hence visibility is not predicted.	Medium	No	No	Negligible	Not Significant
161	Nutts Barn	There are numerous clusters of trees and rows of hedgerows that provide screening for this property; hence visibility is unlikely.	Medium	No	No	Negligible	Not Significant
162	Property on Chapel Road	As with OP 161, screening is provided by trees and hedgerows, so visibility is not expected.	Medium	No	No	Negligible	Not Significant
163	Scant's Corner	Considering distance and as a result, screening from other properties as well as vegetation, visibility is not expected at this property.	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
164	The Clock House	As with OP 164, distance and screening make visibility at this receptor very unlikely.	Medium	No	No	Negligible	Not Significant
165	The Croft	This receptor is screened to the north by vegetation and to the east by properties at North Pickenham, hence visibility to the Panel Areas is not expected.	Low	No	No	Negligible	Not Significant
166	Daleacres	Distance from the Panel Area, as well as topography of the land in-between makes visibility unlikely at this receptor.	Low	No	No	Negligible	Not Significant
167	Tanks UK	As with OP 166, distance from the Panel Area, as well as topography of the land in-between makes visibility unlikely at this receptor.	Low	No	No	Negligible	Not Significant
168	1 The St	This receptor at South Pickenham is well screened by vegetation and trees, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant
169	Houghton Farm	There is significant screening of the Panel Area from hedgerows, trees and other properties. Hence visibility from this receptor is unlikely.	Low	No	No	Negligible	Not Significant
170	35-58 Houghton Lane	Numerous parcels of dense vegetation between this receptor and the Panel Area mean visibility is not expected.	Low	No	No	Negligible	Not Significant
171	Kings Row Farm	Clusters of trees and rows of hedgerows, including those associated with Hale Lane provide screening for this receptor, hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
172	34 Station Road	The undulating topography of the land between receptor and Panel Area make visibility unlikely.	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
173	14 Station Road	As with OP 172, undulating topography of the land between receptor and Panel Area means visibility is not expected at this receptor.	Medium	No	No	Negligible	Not Significant
174	2 School Road	The topography surrounding this receptor lends itself to visibility of the Panel Area, and although there is some tree screening, it is not dense enough to completely inhibit visibility.	Medium	No	No	Negligible	Not Significant
175	8 Lower Road	Clusters of trees and hedges between this receptor and the Panel Area mean visibility is not expected at this receptor.	Medium	No	No	Negligible	Not Significant
176	Holme Hale Hall	This property is a farm as well as ornamental garden. There is significant screening on the property itself from a wall surrounding the garden as well as from dense rows of trees. Therefore, visibility is not expected.	Medium	No	No	Negligible	Not Significant
177	Hill Farm	There are sections of Wood Lane that are not screened at all, and despite the presence of hedgerows between the Panel Area and the receptor, gaps and varying heights of hedges make visibility possible.	High	Yes	Yes	TBC	TBC
178	Grounds Cottage	The proximity of this receptor to the Panel Area makes visibility likely, despite some screening from a hedgerow surrounding the property.	High	Yes	Yes	TBC	TBC
179	Beech Croft	There is potential for some visibility at this receptor due to flat topography and hedgerows of a height not great enough to provide full screening of the Panel Area.	Medium	Yes	No (north of Panel Area)	TBC	TBC
180	Properties on Green Lane	This receptor is a collection of bungalows, so this considered, along with the presence of	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		slightly undulating land and hedgerows, makes visibility unlikely at this receptor.					
181	Ivy Cottages	There is some hedgerow screening from vegetation on Hale Road, however this would not be sufficient at providing screening from upper floors of this property. Due to limited vegetation on the land between this receptor and the Panel Area, visibility is likely.	Medium	Yes	No (north of Panel Area)	TBC	TBC
182	High Farm	Due to the proximity of this receptor to the Panel Area, there may be some visibility from upper floors. There is some screening from vegetation on the property itself, however gaps mean visibility is not fully prevented.	High	Yes	No (north of Panel Area)	TBC	TBC
183	High Green Farm/Rose Hill	There is minimal screening between this property and the Panel Area, with only 250m between these areas of interest. Hence visibility is expected.	High	Yes	Yes	TBC	TBC
184	The Brye/High Green House/Newling Farm	The properties at this receptor are well screened from hedgerows in the immediate vicinity and visibility to the Panel Area is unlikely.	Medium	No	No	Negligible	Not Significant
185	Sunville/Unison	There is potential for some visibility to the Panel Area at certain properties in Shipdham, particularly from upper floors. Irregular clusters of trees and relatively low hedgerows do not provide full screening from this area.	Medium	Yes	Yes	TBC	TBC
186	Siltech Racing	Despite being closest to the Panel Area, properties at the edge of Shipdham are unlikely to have visibility to the panels due to screening from clusters of trees at the edges of the village.	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
187	Mill Farm	Visibility to the Panel Area is expected at this receptor, due to low hedgerows between the two areas of interest and limited vegetation screening in general.	Medium	Yes	Yes	TBC	TBC
188	White House	The properties at this receptor compromise both bungalows and two storey houses. Slight undulations in the topography mean visibility from lower floors is unlikely, however the Panel Area may be visible from upper floors of the properties due to limited vegetation screening.	Medium	Yes	Yes	TBC	TBC
189	Orchard Cottage	Hedgerows at this receptor provide significant screening, so visibility here is not expected.	Medium	No	No	Negligible	Not Significant
190	Saham Grove Farm	This property is well screened to the west by dense forest, as well as to the northeast by properties at High Green, hence visibility to the Panel Areas is not likely.	Medium	No	No	Negligible	Not Significant
191	Waite Farm Cottage	There are numerous Panel Areas within 3km of the property, however, there also appears to be significant screening from clusters of trees and rows of hedges around field boundaries. Hence visibility is not expected at this receptor.	Medium	No	No	Negligible	Not Significant
192	Quidney Farm	This receptor is in close proximity to a Panel Areas, however there is also significant screening from dense forest around the property. As a result, visibility is not expected.	High	No	No	Negligible	Not Significant
193	Allotment Farm	This receptor is embedded within a group of Panel Areas; hence visibility is likely and expected at this receptor.	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
194	Cutbush Farm	As with OP 193, this receptor is embedded within a group of Panel Areas; hence visibility is likely and expected at this receptor.	High	Yes	Yes	TBC	TBC
195	Hannover Farm	This receptor is well screened in all directions from the Panel Area; hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
196	Granary Fields	There is limited vegetation screening between this receptor and the Panel Area, hence visibility, in particular from upper floors, is expected.	Medium	Yes	Yes	TBC	TBC
197	Seaview Cottage/The Willows/Widgeon Cottage/Westview	There appears to be significant screening by vegetation from the Panel Area, hence visibility is not expected.	Medium	No	No	Negligible	Not Significant
198	Homestead Farm	Rows of tall hedgerows, as well as clusters of trees between the Panel Area and receptor make visibility unlikely.	Medium	No	No	Negligible	Not Significant
199	Panworth Hall	This property appears well screened by vegetation; hence visibility is not expected at the receptor.	High	No	No	Negligible	Not Significant
200	Ralli Farms	Rows of hedges and trees make visibility from this receptor to the Panel Area unlikely.	High	No	No	Negligible	Not Significant
201	Panworth Hall Farm Cottages	Dense forest to the south provides screening from the Panel Area in this direction, with groups of trees and some hedgerows to the north impeding visibility here. Hence visibility to the two Panel Areas near this receptor is not expected.	Medium	No	No	Negligible	Not Significant
202	171 Hills Road	There appears to be significant screening of the Panel Area from both the west and the north at this receptor. Both vegetation and	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		other properties inhibit visibility from this receptor.					
203	Woodbottom Farm	Vegetation around the border of this property, as well as hedgerows and trees further afield, making visibility to the Panel Area unlikely.	Medium	No	No	Negligible	Not Significant
204	Park Farm	This receptor is at a distance of 330m from the Panel Area with no vegetation screening, hence visibility is expected here.	High	Yes	Yes	TBC	TBC
205	Waite Cottage	Due to the proximity of this receptor to the Panel Area, as well as minimal vegetation screening, there is potential for visibility.	Medium	Yes	Yes	TBC	TBC
206	Dye Farm/Coe Farm	There is some vegetation screening between these properties and the Panel Area, however, it is unlikely to fully inhibit visibility, in particular for upper floors.	Medium	No	No	Negligible	Not Significant
207	Mount Pleasant Farm	Distance to the Panel Area and respective vegetation screening makes visibility unlikely.	Low	No	No	Negligible	Not Significant
208	Copeland's Farm	Distance to the Panel Area and screening from properties and vegetation makes visibility unlikely.	Low	No	No	Negligible	Not Significant
209	Booters Farm House	As with OP 207, distance to the Panel Area and respective vegetation screening makes visibility unlikely.	Negligible	No	No	Negligible	Not Significant
210	Oaklands	As with OP 207, distance to the Panel Area and respective vegetation screening makes visibility unlikely.	Low	No	No	Negligible	Not Significant
211	Brakehill Lodge Farm	As with OP 207, distance to the Panel Area and respective vegetation screening makes visibility unlikely.	Low	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
212	College Farm	As with OP 207, distance to the Panel Area and respective vegetation screening makes visibility unlikely.	Low	No	No	Negligible	Not Significant
213	Daisy Farm	Distance to the Panel Area and respective screening from properties and vegetation makes visibility unlikely.	Low	No	No	Negligible	Not Significant
214	Rose Farm	Distance to the Panel Area and respective screening from properties and vegetation makes visibility unlikely.	Low	No	No	Negligible	Not Significant
215	Wood Farm	Distance to the Panel Area and respective screening from properties at Saham Hills, as well as from vegetation, makes visibility unlikely.	Low	No	No	Negligible	Not Significant
216	Fen Farm/Properties at Carbrooke	Properties at Carbrooke are unlikely to have visibility to the Panel Area due to distance (5km) and screening.	Low	No	No	Negligible	Not Significant
217	Bush Farm	Distance to the Panel Area and respective screening from properties and vegetation makes visibility unlikely.	Low	No	No	Negligible	Not Significant
218	Properties at Ovington	Properties at Ovington are unlikely to have visibility to the Panel Area due to distance and respective screening.	Low	No	No	Negligible	Not Significant
219	Thatched Cottage/Properties on Pages Lane	Properties at Saham Toney are expected to have visibility to the Panel Area, as a result of undulating topography and gaps in hedgerows.	High	Yes	Yes	TBC	TBC
220	Fagley/Lilywale/Maple Cottage	Owing to the number of properties at Saham Hills/Saham Toney, a number of receptors have been identified at this location. The undulating topography of the arable land at	High	Yes	Yes	TBC	TBC

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		Saham Toney make visibility possible at properties on the southern end of Hills Road.					
221	Properties on Hills Road	This receptor represents properties further north on Hills Road that have two storeys. There is likely to be visibility from upper floors due to gaps in trees and hedgerows that border the Panel Area.	High	Yes	Yes	TBC	TBC
222	Hillside Mews	This receptor represents a number of properties that border the Panel Area to the east and north. Due to the proximity to the panels, visibility is expected.	High	Yes	Yes	TBC	TBC
223	Properties at Fir Park	This receptor represents properties in Ashill, in particular those closest to the Panel Area. It is expected that screening will be provided by vegetation and other properties, however for upper floors at these properties, visibility may occur.	Medium	Yes	No	TBC	TBC
224	Trell Contractors	Undulations and lack of dense screening between this receptor and the Panel Area make visibility possible and likely.	Medium	Yes	No	TBC	TBC
225	Lodge Farm	There is some screening from hedgerows and trees, however it is not sufficient at providing full screening of the Panel Area.	Medium	Yes	Yes	TBC	TBC
226	St Georges Lodge/Cottage	There is significant screening from hedgerows on Walton Road, as well as at the receptor itself. Visibility is not expected at this single storey receptor as a result of the factors mentioned.	Medium	No	No	Negligible	Not Significant
227	Saham Hall Keepers Cottage	Screening from hedges and trees at the property, as well as undulating topography	Medium	No	No	Negligible	Not Significant

No.	Receptor or receptor group	Visibility/Screening Assessment	Receptor Sensitivity	Further qualitative assessment necessary to determine Significance		Magnitude of effect	Significance
				Tracked panels	Fixed panels		
		and vegetation further afield mean visibility is not expected.					
228	Saham Hall	Screening from hedges and trees as well as undulating topography mean visibility is not expected at this property.	Medium	No	No	Negligible	Not Significant
229	Dairy Cottages	The distance and respective vegetation on the land between the Panel Area and receptor make visibility unlikely.	Low	No	No	Negligible	Not Significant
230	Willow Cottage	This receptor is screened by properties at Saham Toney, as well as by vegetation on the land between the Panel Area and the property, hence visibility is not expected here.	Low	No	No	Negligible	Not Significant

9.8.4 Decommissioning

- 9.8.4.1 The decommissioning process will largely be the reverse of the construction process, with activities involving the removal of the infrastructure piece-by-piece. As panels are removed from the mounting frames, the mounting structures will become more visible again and these will have potential to reflect glare. It is anticipated that the Panel Areas will be decommissioned in sections, with panels being removed from one section, then the mounting structures, cabling and other infrastructure being removed before the next section of the Panel Area undergoes the same procedure.
- 9.8.4.2 Whilst the mounting structures are visible, there is some potential for glare to be reflected towards receptors, but this will be a temporary effect for a short period of time, so it is not considered necessary to mitigate against it.
- 9.8.4.3 Rail receptors (High sensitivity) will experience temporary effects during the decommissioning phase. The magnitude of change is not quantifiable, but is likely to be Low. The overall significance of effect on rail receptors is Minor Adverse and **Not Significant** without mitigation.
- 9.8.4.4 Road receptors (High sensitivity) will similarly experience temporary effects during the decommissioning phase. Again, the magnitude of change is not quantifiable, but it is expected to be Low. The overall significance of effect on roads receptors is Minor Adverse and **Not Significant** without mitigation.
- 9.8.4.5 For aviation receptors (High sensitivity), impacts will be temporary, and the magnitude of change is Minor to Negligible. The overall significance of effect on aviation receptors is Minor Adverse and **Not Significant** without mitigation.
- 9.8.4.6 For dwelling receptors (Medium sensitivity), during the decommissioning phase, impacts will be temporary and the magnitude of change, whilst not quantifiable, will be Low. The overall significance of effect on dwelling receptors is Negligible and **Not Significant** without mitigation.

9.9 Additional Mitigation

- 9.9.1.1 At this stage no requirement for additional mitigation has been identified. Requirements will be considered further following detailed design as the relevant parameters are determined to allow geometrical modelling and the quantitative assessment can be undertaken. The results of this will be reported in the ES.

9.10 Residual Effects

- 9.10.1.1 The assessment of residual effects describes any effects remaining after the additional mitigation is implemented and relies on the conclusions of the assessment of effects. In this instance, the assessment of effects includes a large number of unknowns, since the design parameters for the geometric modelling have not yet been defined. The evaluation of any residual effects will be reserved

until the detailed assessment can be carried out to determine the actual extents of glint and glare predicted at individual receptors.

9.11 Monitoring

- 9.11.1.1 At this stage no monitoring is proposed. Once the design parameters have been finalised quantitative assessment will be completed and, if required, monitoring may be described in the ES.

9.12 Opportunities for Enhancement

- 9.12.1.1 At this stage no enhancement measures are required or proposed. Once the design parameters have been finalised quantitative assessment will be completed and, if identified, opportunities for enhancement may be described in the ES.

9.13 Summary

- 9.13.1.1 This assessment is a qualitative analysis of the likelihood and significance of glint and glare effects at receptors that mostly fall within 5km of the Proposed Development. For aviation receptors, this area is extended to 20km due to the sensitivity of such receptors.
- 9.13.1.2 Conclusions have been drawn as to whether the identified receptors should be taken forward to the quantitative assessment, which will form part of the ES Chapter on Glint and Glare.
- 9.13.1.3 At this stage, 91 fixed receptors have been identified as requiring further assessment. If fixed panels are used, 12 of these receptors can be excluded from quantitative assessment, due to their visibility only being of the back of the panels.
- 9.13.1.4 For the tracked panel scenario, 45 transport receptors have been identified as requiring further assessment, 9 of these being PRowS or trails, and 36 being roads. The fixed panels will require quantitative assessment of 41 receptors; 6 PRowS or trails and 35 roads.
- 9.13.1.5 Of the aviation receptors initially identified, RAF Marham requires further assessment and will be quantitatively modelled in the ForgeSolar software. As well as modelling the 2-mile flight paths of aircraft, ATCT have been identified as sensitive fixed (observation point) receptors for quantitative analysis.
- 9.13.1.6 Table 9-13 presents a summary of the Glint and Glare assessment, detailing further mitigation requirements and residual effects.

Table 9-13 Glint and Glare Preliminary assessment summary

Receptor sensitivity	Embedded and good practice measures	Description of impact and magnitude	Significance of effect	Additional mitigation	Residual effect
Construction					
Glint and glare on aviation receptors (Low to medium sensitivity)	Install panels on frames in small sections to avoid leaving exposed metal to reflect	Varies and will require detailed assessment Anticipate minor adverse to negligible	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on rail receptors (Low to high sensitivity)	Install panels on frames in small sections to avoid leaving exposed metal to reflect	Minimal, if any visibility. Minor adverse to negligible	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on road receptors (Low to high sensitivity)	Install panels on frames in small sections to avoid leaving exposed metal to reflect	Minimal, if any visibility. Minor adverse to negligible	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on PRoW receptors (Negligible to low sensitivity)	Install panels on frames in small sections to avoid leaving exposed metal to reflect	Varies by receptor and will require detailed assessment	Minor, not significant	N/A	Minor, Not Significant

Receptor sensitivity	Embedded and good practice measures	Description of impact and magnitude	Significance of effect	Additional mitigation	Residual effect
Glint and glare on residential receptors (Negligible to high sensitivity)	Install panels on frames in small sections to avoid leaving exposed metal to reflect	Varies by receptor and will require detailed assessment	Minor, not significant	N/A	Minor, Not Significant
Operation					
Glint and glare on aviation receptors (Low to medium sensitivity)	Layout revision where required to mitigate any unacceptable impacts	Varies and will require detailed assessment. Magnitude TBC	TBC	N/A	TBC
Glint and glare on rail receptors (Low to high sensitivity)	Additional screening to be embedded in design where required	Varies and will require detailed assessment. Magnitude TBC	TBC	N/A	TBC
Glint and glare on road receptors (Low to high sensitivity)	Additional screening to be embedded in design where required	Varies and will require detailed assessment. Magnitude TBC	TBC	N/A	TBC
Glint and glare on PRow receptors (Negligible to low sensitivity)	Additional screening to be embedded in design where required	Varies and will require detailed assessment. Magnitude TBC	TBC	N/A	TBC
Glint and glare on residential receptors (Negligible to high sensitivity)	Additional screening to be embedded in design where required	Varies and will require detailed assessment. Magnitude TBC	TBC	N/A	TBC
Decommissioning					

Receptor sensitivity	Embedded and good practice measures	Description of impact and magnitude	Significance of effect	Additional mitigation	Residual effect
Glint and glare on aviation receptors (Low to medium sensitivity)	Remove panels and frames in small sections to avoid leaving exposed metal to reflect	Varies and will require detailed assessment Anticipate minor adverse to negligible	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on rail receptors (Low to high sensitivity)	Remove panels and frames in small sections to avoid leaving exposed metal to reflect	Minimal, if any visibility. Minor adverse to negligible	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on road receptors (Low to high sensitivity)	Remove panels and frames in small sections to avoid leaving exposed metal to reflect	Minimal, if any visibility. Minor adverse to negligible	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on PRow receptors (Negligible to low sensitivity)	Remove panels and frames in small sections to avoid leaving exposed metal to reflect	Varies by receptor and will require detailed assessment	Minor, not significant	N/A	Minor, Not Significant
Glint and glare on residential receptors (Negligible to high sensitivity)	Remove panels and frames in small sections to avoid leaving exposed metal to reflect	Varies by receptor and will require detailed assessment	Minor, not significant	N/A	Minor, Not Significant

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