

Gate Burton Energy Park Environmental Statement

Volume 3, Appendix 10-G: Residential Visual Amenity Survey Document Reference: EN010131/APP/3.3 January 2023

APFP Regulation 5(2)(a) Planning Act 2008 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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10. Residential Visual Amenity Survey

10.1 Introduction

- 10.1.1 A residential visual amenity survey has been carried out in order to determine potential significant visual effects on residents, and to outline the mitigation measures undertaken through the Landscape and Visual Impact Assessment (LVIA) process in order to prevent, reduce or offset potential adverse landscape and visual effects or enhance potential beneficial effects, where possible.
- 10.1.2 Activities undertaken to offset potential significant effects of the Scheme on residential receptors located adjacent or near the Scheme are described herein.
- 10.1.3 Potential landscape effects on the receptors identified relate to changes to the fabric, character and quality of the landscape resource and how it is experienced. Potential visual effects relate to changes to existing views or the general visual amenity.

10.2 Residential Visual Amenity Assessment (RVAA) Guidance

- 10.2.1 GLVIA3 (Ref 10-1) notes that, in some instances, it may be appropriate to consider private viewpoints from residential properties. It advises that the scope and approach of such an assessment should be agreed upon with the planning authority as it would be impractical to visit all properties that might be affected, and the effects of development on private views are usually dealt with by way of residential amenity assessments.
- 10.2.2 The Landscape Institute has since issued *Technical Guidance Note 2/19 Residential Visual Amenity Assessment (RVAA)* (Ref 10-2) which draws on the principles and processes established by the GLVIA3, Inspector decisions and the experience of landscape architects in this field. The Foreword explains that *"residential visual amenity assessment (RVAA) is a stage beyond LVIA and focuses exclusively on private views and private visual amenity"*. It defines residential visual amenity as *"the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage"*.
- 10.2.3 It notes that changes in views and visual amenity are considered in the planning process but, in respect of private views and visual amenity "no one has 'a right to a view' (para 1.5). It also notes that "it is not uncommon for significant effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape" but "this in itself does not necessarily cause a particular planning concern. However, there are situations where the effect on the outlook/visual amenity of a residential property is so great that it is not generally considered



to be in the public interest to permit such conditions to occur where they did not exist before" (para 1.6).

- 10.2.4 With regards to when an RVAA should be undertaken, it advises that "LVIA findings of significant (adverse) effects on outlook and/or visual amenity at a residential property do not automatically imply the need for an RVAA. However, for properties in (relatively) close proximity to a development proposal, and which experience a high magnitude of visual change, a RVAA may be appropriate, and may be required by the determining /competent authority" (para 2.5).
- 10.2.5 With regards to undertaking an RVAA, the guidance recommends a transparent, objective approach to the assessment, based on the GLVIA3 principles and processes, evaluating and assessing the likely change to the visual amenity of a dwelling, as a result of the development and for the assessor to draw a conclusion as to whether the effect reaches the *"Residential Visual Amenity Threshold"* (para 3.1).
- 10.2.6 With regard to the RVAA process, the guidance recommends four steps which are set out in Figure 1 and Section 4 of the guidance text, and can be summarised as:
 - **Step 1:** Define the study area and identify the properties to be assessed determine the size of the study area and the scope of the RVAA on a case-by-case basis, taking account of the type and scale of the proposed development and the landscape and visual context, informed by ZTVs.
 - **Step 2:** Evaluate baseline visual amenity of properties describe the type, nature, extent and quality of the primary/main and secondary/peripheral views that may be experienced 'in the round' from the dwelling itself and from its domestic curtilage (including domestic gardens and drives).
 - Step 3: Assess likely change to visual amenity of properties assess the magnitude and significance of changes to views and visual amenity of properties, taking into account the sensitivity of residential receptors (which is likely to be high based on the value they place on their private views and visual amenity and their susceptibility to change).
 - **Step 4:** Form the Residential Visual Amenity Threshold judgement undertake a detailed assessment of individual properties predicted to experience the greatest magnitude of change to judge whether the Residential Visual Amenity Threshold would be reached.
- 10.2.7 With regard to forming a judgement on the Residential Visual Amenity Threshold, the guidance advises that this requires experience in addition to thorough and logical evaluation and reasoning, and that experience can be gained by peer review of assessments by others, visiting completed developments and checking if the changes to views and visual amenity were as predicted, plus analysing the information and reasoning used by planning Inspectors in England and Wales, Reporters in Scotland [and Commissioners in Northern Ireland] in reaching their findings and conclusions (para 3.1).
- 10.2.8 It advises (para 4.19) that judgements should be communicated in a coherent manner, using text with clear descriptions, employing terminology which is commonly understood and descriptors which may have been previously used.



Judgements should be unambiguous and have a clear, rational conclusion. It also gives some example descriptions and descriptors that might be used:

- *"blocking the only available view from a property"*
- "overwhelming views in all directions"
- "unpleasantly encroaching"
- "being inescapably dominant from the property".
- 10.2.9 It notes that it may be useful to employ bespoke graphics such as annotated aerial photographs and wireframe visualisations to aid this final step of the assessment (para 4.19).
- 10.2.10 The guidance also advises that the final judgement on residential amenity is a planning matter which may be informed by an RVAA and other assessments, but which requires the weighing of all factors and likely effects (positive and negative) in the planning balance, so is a matter for qualified planners (and decision-makers), not the RVAA assessors (para 1.9).

10.3 Method of Survey

- 10.3.1 The survey undertaken for this project has followed the RVAA guidance and has therefore followed a method of assessment which takes into account the above policy, inspector decisions and guidance. The sensitivity of residential receptors was considered generally high as views from residences are considered principal views experienced daily. The Residential Visual Amenity Threshold was not reached for any of the relevant residences, and no significant adverse effects were found on residential receptors as a result of the Scheme. Therefore, a full RVAA was not carried out. However, the preliminary findings and resulting mitigation measures put in place during observations made through this survey are listed herein.
- 10.3.2 The survey has involved a desk-based analysis using Ordnance Survey maps and aerial photography, a computer-generated ZTVs (see ES Volume 2: Figures 10-9A to 10-10C [EN010131/APP/3.2]), fieldwork observations from both the nearest accessible location to each property and the wider area using computer-generated wireframe views from each residential location (taken from open views from the curtilage of the dwelling closest to the proposed project) and professional judgement. On site consultation with residents was carried out on the 7^{th of} September 2022. Viewpoint locations within private properties have been identified and verified site photography has been taken to produce photomontages illustrating the existing view, the proposed view at Year 1 and Year 15 with proposed landscape mitigation measures. The viewpoint mapping of views from residential properties included in ES Volume 2: Figure 10-19 [EN010131/APP/3.2]. Associated viewpoint photography / photomontages have been produced but are not included in the ES for privacy reasons.

Step 1 - Study Area and Residential Properties

10.3.3 Dwellings located along the scheme's Order limits were selected due to the near distance of the properties to the scheme, resulting in the likelihood of



these properties reaching the Residential Visual Amenity Threshold given the proximity to the scheme.

- 10.3.4 Then, the status of all properties within the study area have been examined to determine whether they are:
 - An existing residential property that is occupied or capable of occupation.
 - A derelict property or a non-residential building (e.g. an agricultural barn).
 - An existing property that is owned and/or occupied by the solar farm landowners or others with a financial interest in the Scheme.

Step 2 - Baseline Visual Amenity of Properties

- 10.3.5 Visual receptors likely to experience views of the construction, operation or decommissioning of the Scheme have been identified through interrogation of the ZTVs and fieldwork surveys, and subsequently categorised into the following types:
 - Type and design of the property bungalow, semi-detached, detached, Tshaped, L-shaped, etc, number of storeys (single, single with dormer windows or skylights, two, three, etc), the number of windows in the front and rear façades and gable ends (where these can be determined) and the layout of the external spaces (front/rear gardens, driveway, etc).
 - Orientation of property using the OS grid directions north (N), northnortheast (NNE), northeast (NE), east-northeast (ENE), east (E), eastsoutheast (ESE), southeast (SE), south-southeast (SSE), south (S), southsouthwest (SSW), southwest (SW), west-southwest (WSW), west (W) west-northwest (WNW), northwest (NW) and north-northwest (NNW).
 - Type, extent and nature of view using terms such as panoramic, open, framed, enclosed, elevated, etc and with a description of the existing built and natural elements in the view.
- 10.3.6 Where feasible, existing views have been characterised in terms of whether they may be the primary/main or secondary/peripheral views from each property. In general, views from windows and doors in the front and rear façades of a property are considered to be primary and views from gardens and driveways are considered to be secondary.

Step 3 - Availability of views towards the Scheme

- 10.3.7 For each residential property, views towards the Scheme from within the dwelling itself and from its domestic curtilage have been analysed to identify where there are likely to be lines of sight between the windows, gardens, driveways, etc, within the property boundaries and the Scheme, the type of views that would be experienced and the extent to which landform, vegetation and/or other buildings are likely to screen the elements of the project in these views (using computer-generated wireframe views, fieldwork observations and aerial photographs). Descriptors include:
 - Type of views direct or oblique and relative elevation.
 - Degree of screening unscreened, partially screened, largely screened or screened.
- 10.3.8 This analysis identifies the location(s) within the property that would provide the most open (least screened) view of the project's elements, i.e., the "worst



case" view (which informs Step 3) and also the number and range of views of the Scheme from each property "in the round", all of which has informed Step 4.

Mitigation Proposals

10.3.9 Step 1 – Step 3 highlights areas which may be directly adversely impacted by the Scheme. The overall objective of the landscape design for the entire scheme is to integrate the Scheme into its landscape setting and avoid or minimise adverse landscape and visual effects as far as practicable. The design has been adjusted based on the observations gathered through this process and was developed in collaboration with the wider design team and other specialists to achieve a solution that achieves this objective whilst maximising opportunities to deliver net gains in biodiversity gain.

Step 4 – Residential Visual Amenity Threshold judgement

- 10.3.10 Finally, the various predicted views from each property (identified in Step 2) have been examined to determine whether the Scheme could be overwhelming in views from a property, where:
 - Overwhelming is where a proposed development would, by virtue of its scale and proximity, be an unpleasantly oppressive and unavoidable presence in views "*in the round*" from a residential property. This depends on the layout and orientation of the property, the availability and nature of views from the property and the number, proximity, scale, relative elevation, arrangement and array width of the turbines in these views.
- 10.3.11 Whilst the judgements on 'overwhelming' use fieldwork observations and quantifiable factors as much as possible, they are essentially subjective. The findings of the survey are presented overleaf and are summarised in Table 1.
- 10.3.12 The detailed findings of the survey are also presented and summarised in Section 10.4 of this Appendix.



10.4 Residential Receptors Observed Using the RVAA Guidance

- 10.4.1 Residences adjacent or near the Order limits which could have a potential to experience 'Overwhelming' visual effects have been visited and surveyed.
- 10.4.2 A summary of those residences has been provided in the table below. Representative viewpoint locations identified within these properties have been mapped in **ES Volume 2: Figure 10-19 [EN010131/APP/3.2]**. Associated viewpoint photography / photomontages have been produced but are not included in the ES for privacy reasons.



Table 10-1: Summary of Residential Visual Receptors adjacent or near to the Order Limits

Residential Property No. and Name	Visual Sensitivity	Magnitude of Visual Effects after implementation of landscape mitigation	Significance of visual effects after landscape mitigation	Mitigation Comments	Viewpoint location within private property
1. Sandy Barr Cottage, Marton Road	High	Low	Moderate to Minor	The red line Order limits of the Scheme bounds this property on three sides. The residential property sits within a mature site surrounded by mature vegetation. There are several gaps in vegetation on the western and eastern boundaries of the property. Mitigation measures introduced include a panel exclusion zone or 'wedge' on either side of the dwelling, a strengthened hedgerow with tree planting along the Order limits and also a residential buffer exclusion of 25m from the property Order limits.	1a ,1b
2. Nursery House - Marton Road	High	Low	Moderate to Minor Moderate to Minor Moderate to Minor		2a , 2b, 2c
3. South Park Farm - Kexby Lane	High	Very Low	Minor to Negligible	Views of the Scheme from this dwelling are barely discernible from both the rear and the front of the property. Mitigation measures closer to the scheme have also aided in screening views from this dwelling.	3a, 3b, 3c

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4. Station Road, Knaith Park	High	Low	Minor	Views of the Scheme from dwellings facing west / southwest are barely discernible at garden level. Glimpses of the upper parts of the panels may be achieved, however, mitigation planting along the Order limits nearest to properties has aided in screening views.	4a
5. Heynings Court, Knaith Park	High	Very Low	Negligible	Distant open views of the Scheme can be available from properties along the southern side of Heynings Court. Landscape mitigation along the Order limits nearest to these dwellings has been included to screen views from this cluster of residential dwellings.	5a
6. Gate Burton House, Gate Burton	High	Medium- Negligible	Moderate-Negligible	No views can be achieved from the curtilage of the dwelling itself, however, a brief vista of distant sections of the Scheme can be achieved on an entry road to the estate. Mitigation measures of an exclusion zone for panels have been introduced to add further distance between the historic estate and the Scheme.	6a – 6f
7. Kexby Lane	High	Very Low	Minor	The western end of a row of houses along Kexby Lane faces the northern section of the Scheme. The Order limits of the Scheme consists of a mature tree belt; however, views of the Scheme could be achieved if panels were placed within this part of the Scheme extents. Panels have been excluded within a triangular area west of the property for this reason. Advanced planting in form of a new tree and shrub belt is proposed along the fence line along the south-eastern boundary of the solar arrays. This will move the built structures of the Scheme into the middle distance and away from the houses in close distance views.	7a



Table 10-2 Residential Property 1: Sandy Barr Cottage

Baseline view	southwest from the front of the house				
	Sandy Barr Cottage is located to the south-eastern extent of the Scheme and is bound to the North, West and East by the Scheme Order limits. To the South, the property is bound by Marton Road.				
Description	The dwelling is a two-storey cottage that faces north / south with a porch on the south (front) façade. Several farm buildings/stables are located to the east of the farmhouse.				
	There is a garden on the south side of the cottage along with a paddock to the north of the dwelling. The property boundaries are made up of mature vegetation which has gaps in some locations.				
Approximate distance to Project	Approximately 7m from the dwelling to the nearest Order limits of the Scheme.				
	 Panel exclusion 'wedge' between this property and the neighbouring property of Nursey House. This offset allows for the existing views from the front façade of the dwelling looking towards the west to be retained. 				
Mitigation Measures	 Additional hedgerow planting to strengthen the existing vegetation on the eastern and western boundaries. 				
	 Increased offset of solar panels to the east of the property, again allowing existing vistas to be retained. 				
RVAA Comments	The red line Order limits of the Scheme bounds this property on three sides. The residential property sits within a mature site surrounded by mature vegetation. There are several gaps in vegetation on the western and eastern boundaries of the property. Mitigation measures introduced include a panel exclusion zone or 'wedge' on either side of the dwelling, a strengthened hedgerow with tree planting along the Order limits and also a residential buffer exclusion of 25m from the property Order limits.				
	Viewpoints 1a & 1b have been identified within this property and are mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.				



Table 10-3 Residential Property 2: Nursery House, Marton Road

Baseline view looking north from the rear garden				
	Nursery House is located to the south-eastern extent of the Scheme and is bound to the North and West by the Scheme Order limits. To the south, the property is bound by Willingham Road and to the east by a commercial premises.			
Description	The dwelling is a two-storey that faces north / south with a 1 st story balcony facing west. A shed/outhouse is located to the south-west within the curtilage of the property.			
	A garden wraps around the entirety of the dwelling with a primary patio area located to the west of the dwelling. The property boundaries are made up of mature vegetation which has gaps in some locations.			
Approximate distance to Project	Approximately 25m from the dwelling to the nearest Order limits of the Scheme.			
	 Panel exclusion 'wedge' between this property and the neighbouring property of Sandybarr Cottage. This offset allows for the existing views from the rear of the property looking towards the east and north to be retained as much as possible. 			
Mitigation Measures	 Additional hedgerow planting to strengthen the existing vegetation on the western boundaries. 			
	Increased offset of solar panels to the north and west of the property, again allowing existing vistas to be retained.			
RVAA Comments	The Scheme Order limits sits to the north and west of this property. The property sits on an elevated plateau which allows distanced views where there are available views. These views are limited due to the property's mature site vegetation. Mitigation measures introduced include a panel exclusion zone or 'wedge' to the rear of the property, a strengthened hedgerow with tree planting along the western Order limits and also a residential buffer exclusion of 25m from the property Order limits.			
	Viewpoints 2a, 2b & 2c have been identified within this property and are mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.			



Table 10-4 Residential Property 3: South Park Farm, Kexby Lane

Baseline view looking northeast from the front entrance

	South Park Farm is located to the northern extent of the Scheme and is a distance from the Order limits of the Scheme, compared to the other dwellings within this assessment. This dwelling was chosen due to its architectural significance as a listed building.
Description	The dwelling sits on a mature site, surrounded by paddocks. To the south of the dwelling sits a mature garden which is heavily vegetated.
	The dwelling is a two-storey that faces north / south with a number of outhouses, stables and sheds to the east of the main dwelling.
Approximate distance to Project	Approximately 140m from the dwelling to the nearest Order limits of the Scheme.
Mitigation Measures	Additional hedgerow planting on the Order limits of panels which are visible to the northeast, screening distant views from this dwelling.
	Views of the Scheme from this dwelling are barely discernible from both the rear and the front of the property. Mitigation measures closer to the Scheme have also aided in screening views from this dwelling.
RVAA Comments	Viewpoints 3a, 3b & 3c have been identified within this property and are mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.



Table 10-5 Residential Property 4: Station Road, Knaith Park

Baseline view looking southwest from the garden

Station Road is located to the north-western extent of the Scheme and is representative of views from nearby dwellings. The surveyed property is located along Station Road and sits west of the railway corridor.		
The dwelling is a two-storey cottage that faces northwest / southeast. The garden is located to the west and has views of open fields.		
Approximately 70m from the dwelling to the nearest Order limits of the Scheme.		
Additional hedgerow planting on the Order limits of panels which are visible to the west, screening distant views from this dwelling.		
Views of the Scheme from this dwelling are barely discernible from the garden of this dwelling. Glimpses of the upper parts of the panels may be achieved, however, mitigation planting along the Order limits nearest this property has aided in screening views from this dwelling.		
Viewpoint 4a has been identified within this property and is mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.		



Table 10-6 Residential Property 5: Heynings Court, Knaith Park

Baseline view looking south from the garden

Description	Heynings Court, Knaith Park is located to the Northern extent of the Scheme and is representative of views south of the Scheme. The surveyed property is located off Station Road and sits east of the railway corridor.				
	The dwelling is a dormer cottage that faces northwest / southeast. The garden is located to the south and has views of open fields.				
Approximate distance to Project	Approximately 200m from the dwelling to the nearest Order limits of the Scheme.				
MitigationAdditional hedgerow planting on the Order limits of panels which are visible to south, screening distant views from this dwelling.					
RVAA Comments	An open view is achieved from this property towards the Scheme, which is located in the background at approximately 690m distance. Mitigation along the Scheme Order Limits nearest to this dwelling has been proposed to screen views from this and neighbouring residences.				
	Viewpoint 5a has been identified within this property and is mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.				



Table 10-7 Residential Property 6: Gate Burton House, Gate Burton Estate

Baseline view looking east from the northern entrance to the Gate Burton Estate					
	The Gate Burton Estate is located to the western extent of the Scheme and is bound to the east by the Scheme Order limits.				
Description	The estate has a number of residential dwellings and several large farm buildings/stables are located to the east of the farmhouse. Gate Burton House does not have any direct view of the Scheme due to the distance and dense vegetation which surrounds the property. Distant glimpses of sections of the Scheme in the background are however achieved on the entrance routes both north and south to the estate.				
Approximate distance to Project	Approximately 25m from the dwelling to the nearest Order limits of the Scheme.				
	 Panel exclusion on the northern access point between the roadway and the brow of the hill seen in the images. 				
Mitigation Measures	 Additional hedgerow planting to strengthen the existing vegetation on the eastern and western boundaries. 				
	• Panel exclusion zone to the east of the eastern estate Order limits, allowing existing vistas, in particular to Burton Wood to be retained.				
RVAA Comments	No views can be achieved from the curtilage of the dwelling itself, however, a brief vista of distant sections of the Scheme in the background can be achieved on an entry road to the estate. Mitigation measures of an exclusion zone for panels have been introduced to add further distance between the historic estate and the Scheme.				
	Viewpoints 6a – 6f have been identified within this property and are mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.				



Table 10-8 Residential Property 7: Kexby Lane

Baseline view	looking we	est from the	garden level
	looking we		garachicver

	An partially open view of the Scheme can be experienced from a dwelling located at the western end of a row of houses along Kexby Lane / B1241. Its main windows face N/S but it also includes windows on both floors facing west.					
Description	The driveway is located on the western side of the house. The western boundary is generally open and has no significant screening vegetation. West and outside of the property boundary, some mature trees are located along a drain of the neighbouring field which contains the Order limits. The existing trees filter partially views to the west.					
Approximate distance to Project	Approximately 25m from the dwelling to the nearest Order limits of the Scheme.					
	• Triangular panel exclusion zone in the south-eastern area of the neighbouring field to achieve a considerable set-back from the residence to the nearest solar arrays.					
Mitigation Measures	 Proposed advance planting of a tree and shrub belt along the south-eastern boundary of the solar arrays along the proposed fence line facing the residence. 					
	 New advanced hedgerow planting along sections of Kexby Lane / B1241 (on the northern side of the ditch) within the Order limits to achieve early screening of the Scheme. 					
RVAA Comments	The dwelling faces the most northern section of the Scheme. The eastern Order limits of the scheme consists of a mature hedgerow and tree belt which contains gaps allowing for views west particularly in sections close to Kexby Lane and the residence. The setback of panels will retain a natural character close to the house. The proposed advanced planting will screen the Scheme in the distance and allow the retention of some of the existing views west from the dwelling.					
	Viewpoint 7a has been identified within this property and is mapped in ES Volume 2: Figure 10-19 [EN010131/APP/3.2] . Associated existing baseline photography, and photomontages at Year 1 and Year 15 have been produced but are not included in the ES for privacy reasons.					



10.5 References

- Ref 10-1 Landscape Institute and the Institute of Environmental Management and Assessment. (2013). Guidelines for Landscape and Visual Impact Assessment 3rd Edition.
- Ref 10-2 Landscape Institute (2019). Residential Visual Amenity Assessment.