Killean Wind Farm

Technical Appendix 5.6

Residential Visual Amenity Assessment

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Date	May 2024
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1 Residential Visual Amenity Assessment

1.1 Introduction

1.1.1 This technical appendix to **Chapter 5: Landscape and Visual Impact Assessment** presents a detailed Residential Visual Amenity Assessment (RVAA) of the Proposed Development. It considers the potential visual effects of the Proposed Development experienced by residents of the nearest property, Kilmory who may experience significant visual effects, as established in **Technical Appendix 5.4**.

1.1.2 The RVAA aims to report at a level that is reasonable and proportionate upon identifying potential significant effects upon the visual amenity of Kilmory. The RVAA identifies if the residents would experience a significant effect on any view from their property (the dwelling or its curtilage) during the operational period of the Proposed Development, and specifically details which views would be affected.

1.1.3 It is important to stress that this technical appendix solely considers the visual component of residential amenity and that any consideration of residential amenity in the broader sense must also take account of any noise and shadow flicker effects, which are addressed elsewhere within the Environmental Impact Assessment Report (EIAR). Therefore, this RVAA does not comment on the acceptability of the Proposed Development, it does however provide a reasoned professional opinion on the likely visual effect on living conditions of the nearest residents.

1.1.4 It should be noted that this study is limited to a consideration of the potential visual impacts the residents might experience within their property, i.e. their dwelling and its curtilage. It is acknowledged that the occupiers of most dwellings experience the wider landscape in passing on a regular basis as they go about their day-to-day activities and that the components of this wider landscape also influence their broader sense of amenity. Residents would most likely have views of the Proposed Development on a regular basis as they leave and approach their properties through the wider landscape.

1.1.5 It is beyond the scope of this study to determine trends in the day-to-day activities of the residents in the study area, or to define the features and qualities of the surrounding landscape which influence residents' broader

amenity. Whilst not discounting this issue, based on previous wind farm appeal decisions, it appears that greatest weight is usually given to impacts on views from the dwelling itself and its curtilage, as these impacts are likely to have the greatest influence on living conditions. Beyond their property, residents are considered to experience visual effects as users of local roads, footpaths etc. These effects are assessed as such within the main LVIA Chapter (**Chapter 5**).

2 Assessment Methodology

2.1.1 In 2019 the Landscape Institute published Technical Guidance Note 2/19 'Residential Visual Amenity Assessment (RVAA)' (March 2019). This confirmed that ***"Residential Visual Amenity Assessment (RVAA) is a stage beyond LVIA and focusses exclusively on private views and private visual amenity."*** The Note goes on to state that the guidance it contains "*is not prescriptive but aims to improve standards*."

2.1.2 This analysis has therefore been informed by a methodology developed by Pegasus Group under the overarching guidelines for LVIA, namely The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (2013), Landscape Institute and the Institute for Environmental Management and Assessment and latterly, the principles set out in Technical Guidance Note 2/19.

2.1.3 In accordance with the above guidelines, the level of visual effect experienced in any given view is ascertained by considering in tandem the sensitivity of the baseline visual receptor and magnitude of change in the view as a result of the development. Professional judgement is then employed to determine whether the effect is significant or not, although this is still based within a recognised framework in line with existing LVIA guidance.

2.1.4 The LVIA assessment criteria used by Pegasus Group acknowledges that different receptor groups (e.g. residents, users of public rights of way, people at their place of work) have varying degrees of sensitivity to change in the view. It is generally accepted that residents are of high sensitivity to change in their view, and in all cases in this assessment, residents at each property have been considered to be of high sensitivity. It is acknowledged, however, that this is a simplified approach which arrives at a worst-case assessment. Sensitivity may, in fact, vary dependent upon the more complex factors such as the functions within the dwelling, for instance residents are generally considered to be more sensitive to changes in the views from certain rooms such as the primary day time living rooms (e.g. lounge, dining room, kitchen or conservatory) than rooms such as bedrooms, bathrooms or utility rooms, notwithstanding the overall high sensitivity for the property as a whole. Similarly, residents

are usually more sensitive to changes in the view from certain parts of their garden or curtilage than others.

2.1.5 Visual impacts are caused by the introduction of new elements into the views of a landscape or the removal of elements in the existing view. Professional judgement has been used to determine the magnitude of impacts using the following criteria as guidance:

Very Low Magnitude of Change

- No change or negligible change in views;

Low Magnitude of Change

- Some change in the view that is not prominent but visible to some visual receptors;

Medium Magnitude of Change

- Some change in the view that is clearly notable in the view and forms an easily identifiable component in the view;

High Magnitude of Change

- A major change in the view that is highly prominent and has a strong influence on the overall view;

Very High Magnitude of Change

- A change in the view that has a dominating or overbearing influence on the overall view.

2.1.6 In general, the magnitude of visual impact on residential properties is likely to increase with proximity to the turbines. However, distance from the nearest proposed turbine is only one of the factors that needs to be considered when determining the magnitude of visual impacts on any given view from a residential property. Other modifying factors include:

- Whether the view of the turbines is in a direct or oblique angle from the primary orientation of the view (as explained illustratively at **Technical Appendix 5.6 Figure 5.6.2**;
- The extent to which the view is obstructed or filtered by vegetation, landform or built structures;
- The extent to which the current view is influenced by existing built structures (e.g. buildings, roads, pylons);

- The difference in elevation between the property and the base of the nearest turbine;
- The horizontal and vertical field of view which is occupied by turbines;
- The spacing or relative clustering of the turbines in the view;
- The scale and openness of the receiving landscape; and
- The availability of other features in the view, which provide a comparison of scale and perspective.

2.1.7 As previously indicated, the level of the visual effect experienced in any given view is determined by considering in tandem the sensitivity of the view with the magnitude of change. The level of effect is described as either '**Major**', '**Major/moderate**', '**Moderate**', '**Moderate/minor**', '**Minor**', '**Minor/No effect**' or '**No effect**'. Professional judgement is then used to inform whether the level of effect identified is significant or not.

2.1.8 In this analysis, those effects described as **Major**, **Major/moderate** and in some cases **Moderate**, are identified as 'significant effects' in line with the Electricity Works (Environmental Impact Assessment) (Scotland) 2017 Regulations as amended.

2.1.9 In the case of each property, once the potential for significant visual effects to arise has been considered, an overall judgement is reached about whether the residents of the property would experience such an overbearing effect on visual amenity that the property would become an unattractive place in which to live. When considering this overall effect of the development on the visual amenity of residents of any given property 'in the round' it is also necessary to take into account the availability of other views from the property which would not be affected by the development.

2.1.10 It is also important to note that these judgements have been made based on the availability of views of the Proposed Development during daylight hours only. It is considered that during the hours of darkness, views of the proposed turbines would, in many cases, be limited and that any views of the proposed aviation lights would not contribute to the level of effects on the available views to the same extent as views of the proposed turbines during daylight hours.

3 Properties Within the RVAA Study Area

3.1.1 At Scoping, a 2 km RVAA Study Area (referred to as the Study Area) was proposed. This was agreed to keep the study proportionate and to focus on the identification of those properties that are most likely to experience significant effects. 12 residential properties were identified from a combination of Ordnance Survey (OS) Address base data, OS 50,000 raster data and aerial photography as being located within the Study Area. These are illustrated in **Technical Appendix 5.6 Figure 5.6.1** and are listed in **Table 5.6.1** below.

Table 5.6.1 – Individual Properties within the 2 km RVAA Study Area

Property ID	Property Name
1	Tavantaggart
2	Garden Cottage
3	Colt House
4	1 Largie
5	2 Largie
6	Kennels
7	4 Largie
8	The Steading
9	Dairy Cottage
10	Culfuar
11	Kilmory
12	Braids

3.1.2 A preliminary assessment of each of these properties was carried out to identify which have the potential to experience significant effects and is presented in **Table 5.4.1** of **Technical Appendix 5.4**.

3.1.3 The preliminary assessment identified eight properties, properties 2 through to 9 inclusive would experience no theoretical visibility of the Proposed Development and that Property 12 – Braids is uninhabitable. As such these properties are not considered further within this RVAA.

3.1.4 Property 1 - Tavantaggart and Property 10 - Culfuar would experience very limited theoretical visibility of up to three blade tips only. While it is

acknowledged that some very limited effects may be experienced, the effects would not be considered significant and as such these properties are not considered further within the RVAA. Wirelines from these properties are included at **Figures 5.6.3** and **Figure 5.6.4** that accompany this appendix.

3.1.5 Therefore, this RVAA focuses solely on Property 11 – Kilmory, based on information gathered through a combination of desk study and site visits to publicly accessible locations, including:

- Name of property;
- Approximate grid reference of property;
- General direction of views from the property to the nearest turbine;
- Distance from the property to the nearest turbine;
- Approximate elevation of property (AOD);
- Number of floors within the property;
- Orientation of the main elevations of the property;
- Angle of the turbines in the view from a representative point on the façade facing the Proposed Development or part of the curtilage with a view of the Proposed Development;
- A record of any intervening obstructions (e.g. screening from vegetation, landform or built structures);
- A record of any built structures which influence the outlook;
- A record of any other features in the foreground view which provide a comparison of scale; and
- The availability of other views from the property that are not affected by the Proposed Development.

3.1.6 Where a distance between the residential property and a turbine is provided, the figure given is an approximate measurement between the centre point of the turbine tower and the corner of the nearest façade to the Proposed Development.

3.1.7 Defining the limits of private gardens can be subjective and considering the view from all corners of any individual garden is not possible. Therefore, this assessment has appraised what is considered to be the worst-case scenario from gardens. Where a property is set back from the public road along an access track that extends beyond the curtilage of the

property, views on approach and departure from the property are also assessed.

3.1.8 A bare earth wireframe showing a 90-degree cylindrical angle of view was generated to help identify the scale, arrangement and visibility of the proposed turbines. These wireline images were reviewed to factor in how natural and built screening would affect visibility of the turbines. In many cases this screening would be such that the wireline images illustrate a far greater potential visibility that would be seen in reality.

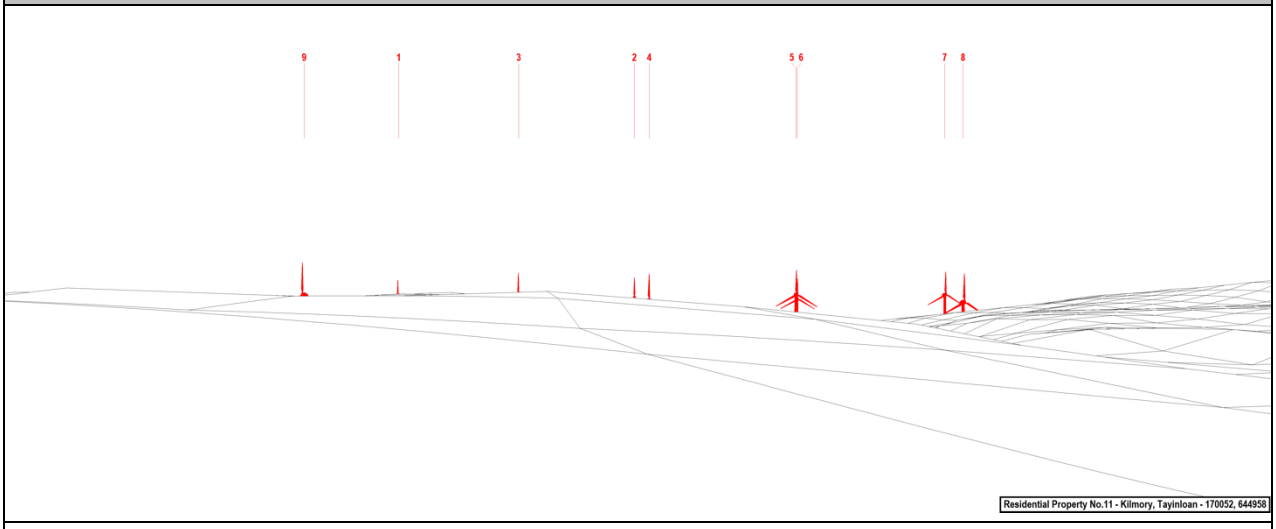
3.1.9 A bare earth wireframe showing a 90-degree angle of view towards the proposed turbines, from the corner of the nearest façade of the property is provided. The wireframe does not take account of any intervening screening provided by vegetation.

4 Assessment of Effects

4.1.1 The following section presents the information gathered through field and desktop study and provides detailed analysis and discussion of the effects on visual amenity likely to be experienced during the operational phase of the wind farm, from Kilmory.

4.1.2 While the area was visited during summer months whereby increased screening from vegetation, the assessment of effects states the worst-case scenario (winter views) unless otherwise stated.

Property 11 - Kilmory



Property Type:	Farmhouse with associated barn buildings	Visible Wind Farm Extent:	47°
Grid Reference:	177504, 644949	No. of Blade Tips Visible:	9
Elevation:	81m AOD	No. of Hubs Visible:	5
Orientation of facades towards Proposed Development:	Easterly oblique views towards the Proposed Development		
Distance to Nearest Turbine:	1,968m (T9)		

Existing Residential Visual Amenity and discussion of effects		
Kilmory is a farmhouse with associated barns positioned around a central courtyard area, situated to the north of the Killean forest access track. The property is accessed via a short access track that sweeps north westwards from the forest access track, passing between the main dwelling and external buildings, arriving in the central courtyard between the buildings. The main dwelling is orientated north east to south west, with adjacent buildings to its north side around the central yard area. An area of amenity grass with specimen trees is situated to the immediate west of the access track and to the south of the dwelling. A garden lawned area is situated adjacent to the south west façade. More informal outside space comprising a growing area with amenity grassland and a small pond is situated to the north west of the property. To the north east of the property, the central courtyard area is lined with buildings to its north west and south east sides. To the north of this central yard is a storage area with a large, open grassed area beyond, with an area of trees beyond. Views towards the Proposed Development would be available from the access track leading north off the forest track and from the open, grassed areas to the north east of the property. Views from the property would be largely screened by the adjacent outbuildings positioned around the yard to the north east façade of the property. Views would also potentially be available approaching the access to the property when travelling towards the property along the forest access track. The blade tips of all nine turbines would be theoretically visible above the horizon but actual visibility from the dwelling, garden areas to the north west, south west and south would be partially screened by intervening vegetation near to the property and to the east.		
Views from within property:	Limited potential for oblique views but considered likely to be partially screened by intervening buildings and vegetation.	
Views from curtilage:	Oblique views from open grass area to the north east. Views from areas to the north west and south west screened by the dwelling.	
Views from along access:	Very oblique to perpendicular views	
Magnitude of change :	From Property	Low
	Curtilage	Medium
	Access	Medium
Level of effect :	From Property	**Moderate/minor non-significant**
	Curtilage	**Moderate non-significant**
	Access	**Moderate non-significant**
Overbearing:	No, turbines are largely screened by landform and due to the distance from the property. Actual visibility would be further reduced by intervening vegetation. Turbines also appear set beyond the landform to the east of the property.	

5 Summary and Conclusions

5.1.1 Having undertaken an appraisal of the relationship between the proposed turbines and the residential properties within the 2 km RVAA study area, it is assessed that residents at the single property brought forward into detailed assessment would not experience a significant visual effect.

5.1.2 Although it is acknowledged that residents at Kilmory would experience some visual effects, it is not the case that any of the effects would be of such a scale so as to become dominant or overbearing.