# TECHNICAL APPENDIX 7.4: RESIDENTIAL VISUAL AMENITY ASSESSMENT

Kirkton Energy Park

Prepared for: Kirkton Wind Farm Limited

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# **1.0 Introduction**

The purpose of this Technical Appendix is to provide an assessment of the potential effects of the proposed Kirkton Energy Park (the proposed development) on the visual amenity of residential receptors living within close proximity to the proposed development.

The Landscape Institute Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA 3, 2013) states at para. 6.17 that 'Effects of development on private property are frequently dealt with mainly through 'residential amenity assessments'. These are separate from LVIA although visual effects assessment may sometimes be carried out as part of a residential amenity assessment, in which case this supplements and forms part of the normal LVIA for a project. Para. 6.36 of GLVIA 3 recommends that the matter of whether a RVAA should be carried out should be agreed with the relevant determining authority.

Residential visual amenity means visual amenity from residential properties including their gardens. It is a subset of residential amenity, which may include aspects such as noise, light, vibration and shadow flicker, traffic etc. This report only addresses the visual component of residential amenity.

The Landscape Institute has published specific guidance on RVAA: Technical Guidance Note 2/19 (15 March 2019). This guidance is not intended to be prescriptive but provides advice on the approach to RVAA. This assessment has been prepared based on the LI Technical Guidance Note. The Technical Note defines Residential Visual Amenity (RVA) as:

"The overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage'. Residential Visual Amenity is one component of 'Residential Amenity'."

The LI Technical Note sets out the 'steps' to be followed when undertaking a RVAA and highlights how it should be informed by the principles and processes of the Guidelines for Landscape and Visual Impact GLVIA3. It explains the purpose of RVAA as follows:

"The purpose of RVAA is to provide an informed, well-reasoned answer to the question: 'is the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or Residential Amenity'? In this guidance this is referred to as the Residential Visual Amenity Threshold."

RVAA is intended to inform the planning process. It is in this context that the Technical Note makes the following statement:

"It is not uncommon for significant adverse 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. In itself this does not necessarily cause 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."

# 2.0 Scope and Approach

LI Technical Note identifies four key stages in a RVAA, as follows:

- 1. **Definition of study area and scope of the assessment** informed by the description of the proposed development, defining the study area extent and scope of the assessment with respect to the properties to be included.
- 2. **Evaluation of baseline visual amenity** at properties to be included having regard to the landscape and visual context and the development proposed.
- 3. **Assessment of likely change to visual amenity** of included properties, in accordance with GLVIA3 principles, and identify properties requiring further assessment and processes.
- 4. **Detailed assessment of individual properties identified in Step 3 as having the greatest magnitude of change**, forming a judgement with respect to the Residential Visual Amenity Threshold.

The above steps have been followed in the preparation of the RVAA.

The proposed Kirton Energy Park includes 11 turbines on the elevated land to the west of Strath Halladale. The proposed turbines are positioned in a single, slightly arced line, with regular spacing between each turbine location. Ancillary elements comprise tracks, borrow pits and a substation compound. However, the RVAA concentrates on the proposed wind turbines, as it is the size of these elements of the proposed development that have the potential to result in a level of change in relation to the Residential Visual Amenity Threshold. Kirkton Energy Park has been the subject of a design evolution process, with a key aim of this being to reduce the potential visual effects of the proposed development. This design evolution process is described in **Chapter 2: Site Description and Design Evolution** of the EIA Report and the **Design and Access Statement**.

The residential properties that are included in the RVAA are all located within Strath Halladale. There are no properties in the vicinity of the site to the west. Melvich and Portskerra lie to the north of the site, beyond 2km, and have been excluded from the RVAA. The definition of the study area for the RVAA and scope of assessment id described below in Section 2.1 of this document. The locations of the properties are shown in **Figure 7.4.1**.

# 2.1 Step 1: Definition of the Study Area and Scope of the Assessment

Scottish Planning Policy (SPP) recommends that community separation distance for consideration of visual impact deriving from wind energy development should extend to 2km from the edge of cities, towns and villages. The settlement pattern around the proposed development within 5km contains two villages: Melvich, at approximately 2.8km from the nearest proposed turbine at Kirkton Energy Park, and Portskerra, at approximately 4.1km from the nearest proposed turbine.

Melvich comprises a linear settlement along the A836, whilst Portskerra is arranged in a largely triangular layout around a local road network to the north of Melvich and the A836. The Zone of Theoretical Visibility (ZTV) shown on **Figures 7.2b and 7.2c**, indicates limited visibility of the proposed development from Melvich and Portskerra, which has been confirmed through fieldwork and wireline analysis of representative viewpoints. The predicted extent of visibility, described in the Landscape and Visual Impact Assessment (**Chapter 7** of the EIA Report) and extent of the wind turbines that would be seen, restricts the predicted level of effect and therefore properties within these settlements have not been included in the RVAA.

The RVAA considers the potential effects that would occur at properties within approximately 2km. This study area was considered appropriate for the proposed turbines, which comprise 11 turbines with a blade tip height of 149.9m (83.4m to hub/nacelle and rotor diameter of 133m). This study area was proposed in the EIA Scoping Report<sup>1</sup> and no comments have been received in relation to this in consultee responses. In order to establish

<sup>&</sup>lt;sup>1</sup> SLR Consulting for Wind2 Ltd (2021) Kirkton Wind Farm: Environmental Impact Assessment Scoping Report

the list of properties for inclusion in the study, a careful review of Ordnance Survey mapping and aerial photography was undertaken to identify potential residential properties, with this subsequently confirmed through fieldwork. These were reviewed in relation to the ZTV map (see **Figure 7.2b and 7.2c**) for the proposed development and wirelines were also prepared for each property.

The residential properties of Ackron and Golval, at the northern end of Strath Halladale, are just beyond 2km from the nearest proposed turbine. Given their proximity to the recommended 2km separation distance and open views that they have towards the proposed development, it was considered appropriate to include them in the RVAA.

For the purposes of the RVAA for Kirkton Energy Park 12 locations have been selected that are considered representative of the views obtained from the properties included in the RVAA. In two instances (described in **Table 2-1** below), the properties have been grouped due to their similar location and the nature of the views obtained towards the proposed development. The representative viewpoint locations are shown on **Figure 7.4.1**. These locations are listed in **Table 2-1** below.

No.	Location	Co-ordinates (OS GB)	Approx. Distance to Nearest Turbine	Reason for Inclusion	
1	Ackron	289958, 962494	2.4km	Represents a single residential property towards the northern end of Strath Halladale. Located beyond 2km, but with clear views towards the site.	
2	Golval	289908, 962110	2.2km	Represents a single residential property towards the northern end of Strath Halladale. Located beyond 2km, but with clear views towards the site.	
3	Tigh Na Breac (new property at Loch Earacha)	289950, 960776	1.9km	Represents a single residential property towards the northern end of Strath Halladale within 2km of the closest turbine.	
4	Calgary Beg	289913, 959069	2km	Represents a single residential property towards the northern end of Strath Halladale within 2km of the closest turbine.	
5	Culifearne Croft and Achiemore Farm (four properties)	289728, 958745	1.8km	These two locations represent small groups of residential properties within Strath Halladale within 2km of the closest turbine. The properties have been grouped due their consistency in outlook and view towards the proposed development. In both instances the location is represented by a relatively central position within the group.	
6	Achimore, Former Free Church, Cornmill Bunkhouse, Smigel and Craigfillan (five properties)	289529, 957693	1.6km		
7	Ar Dachadh	289456, 957160	1.7km	Represents a single residential property within Strath Halladale within 2km of the closest turbine.	

# Table 2-1: Locations included in the RVAA

No.	Location	Co-ordinates (OS GB)	Approx. Distance to Nearest Turbine	Reason for Inclusion
8	Craigton	289222, 956718	1.8km	Represents a single residential property within Strath Halladale within 2km of the closest turbine.
9	27 Upper Bighouse	288885, 957484	1km	Represents a single residential property within Strath Halladale within 2km of the closest turbine.
10	Kirkton Cottage	288984, 962051	1.4km	Represents a single residential property within Strath Halladale within 2km of the closest turbine.
11	Kirkton Farm House	289042, 961931	1.4km	Represents a single residential property within Strath Halladale within 2km of the closest turbine.
12	Ar Dachaidh	289016, 961703	1.2km	Represents a single residential property within Strath Halladale within 2km of the closest turbine.

The properties included in the RVAA include several properties that are owned by landowners participating in Kirkton Energy Park: Kirkton Farm House, Ar Dachaidh, the former Free Church and 27 Upper Bighouse. These properties have been assessed in the same way as other properties included in the RVAA.

The majority of residential properties within Strath Halladale, within 2km of the turbines are considered in the RVAA, and listed in the above table. Two properties have been excluded from the RVAA due to the lack of predicted visibility of the proposed turbines. These comprise Laidhan/Bighouse and the more southerly property at Upper Bighouse. Both are positioned on the west side of Strath Halladale, at the base of relatively steeply sloping land, and views towards the turbines are screened by the intervening landform.

There are occasional ruins of former residential properties within Strath Halladale e.g. in the vicinity of Bighouse/Upper Bighouse. However, these are the remains of buildings rather than being vacant houses and considerable rebuilding would be required to create habitable dwellings. Such properties have not been included in the RVAA.

# 2.2 Step 2: Evaluation of Baseline Visual Amenity

Following the identification of locations to be included in the RVAA, desk based information was analysed and a site visit was carried out to evaluate the baseline visual amenity at each property, having regard to the landscape and visual context and the development proposed. The Technical Note requires the following aspects to be considered from each property as part of the baseline visual amenity evaluation:

- "the nature and extent of all potentially available existing views from the property and its garden / domestic curtilage, including the proximity and relationship of the property to surrounding landform, landcover and visual foci. This may include primary / main views from the property or domestic curtilage, as well as secondary / peripheral views; and
- views as experienced when arriving at or leaving the property, for example from private driveways / access tracks."

The evaluation of baseline visual amenity has been carried out from publicly accessible locations adjacent to properties (i.e. pavements, roads and paths). Two properties, Achiemore Farm and Smigel, are slightly remote

from the local road network but it is possible to make reasonable assessment judgements based on a combination of the field observations made and the analysis of aerial photography.

Residential receptors are generally considered to be of high sensitivity to change and this judgement forms the basis of the subsequent assessment of likely change to the visual amenity of the residential receptors scoped into the RVAA.

RVAA sheets have been prepared for each of the 12 locations scoped into the RVAA. These sheets comprise **Figures 7.4.2** to **7.4.13** and include the following information:

- an Ordnance Survey map showing the location of the property and an aerial photograph;
- the direction of view towards the proposed development and extent of horizontal field of view within which it would be theoretically visible (i.e. based on bare earth visibility modelling and not taking into account screening by features such as vegetation or buildings);
- a 90 degree wireline view of the proposed development from the property; and
- a description of baseline visual amenity and the assessment of the change predicted from the proposed development (which is described below).

# 2.3 Step 3: Assessment of Likely Change

Following establishment of the baseline, the next step advocated by the LI Technical Note is to assesses the magnitude of change and significance of likely visual effect that would be caused by the proposed development at the included properties. The key aim of Step 3 is to identify those properties subsequently requiring further assessment in Step 4 in relation to the Residential Visual Amenity Threshold judgement.

The Technical Note states that the following considerations should provide a framework for describing and evaluating the predicted magnitude of visual change and related visual amenity effects which may lead to the property being considered in Step 4:

- "Distance of property from the proposed development having regard to its size / scale and location relative to the property (e.g. on higher or lower ground);
- Type and nature of the available views (e.g. panoramic, open, framed, enclosed, focused etc.) and how they may be affected, having regard to seasonal and diurnal variations;
- Direction of view / aspect of property affected, having regard to both the main / primary and peripheral / secondary views from the property;
- Extent to which development / landscape changes would be visible from the property (or parts of) having regard to views from principal rooms, the domestic curtilage (i.e. garden) and the private access route, taking into account seasonal and diurnal variations;
- Scale of change in views having regard to such factors as the loss or addition of features and compositional changes including the proportion of view occupied by the development, taking account of seasonal and diurnal variations;
- Degree of contrast or integration of new features or changes in the landscape compared to the existing situation in terms of form, scale and mass, line, height, colour and texture, having regard to seasonal and diurnal variations;
- Duration and nature of the changes, whether temporary or permanent, intermittent or continuous, reversible or irreversible etc.; and
- Mitigation opportunities consider implications of both embedded and potential further mitigation."

As is the case with Step 2, this Step has been carried out on site and also applies desk based information, including Ordnance Survey mapping aerial photography and the RVAA sheets for each property. The Technical Note states that Step 3 should conclude by identifying the properties that should be assessed further in Step 4 in order to reach a judgement regarding the Residential Visual Amenity Threshold.

# 2.3.1 Illustrative Tools

Wirelines have been produced of the predicted view of the proposed turbines from each of the identified property/group of properties' locations, (see **Figures 7.4.2** to **7.4.13**).

Location plans overlaid with the blade tip ZTV for the proposed development alongside an aerial image are shown in conjunction with the wireline views for each of the individual properties or groups of properties included in the assessment. These are also presented in **Figures 7.4.2** to **7.4.13**.

# 2.4 Step 4: Further Assessment of Predicted Change

For any properties identified at Stage 3 as requiring further consideration, this final step of RVAA involves a more detailed examination of the predicted effects on the visual amenity at the relevant properties. For those properties where the largest magnitude of change and potential effect of visual amenity has been identified. This concluding judgement reports whether the predicted effects on visual amenity and views at the property are such that it has reached the Residential Visual Amenity Threshold. For each property where this judgement is made, an explanation is provided setting out why the effects are, or are not, considered to reach the Residential Visual Amenity Threshold.

# 2.5 Cumulative Assessment

The guidance states that cumulative impacts on the landscape and visual resource are matters to be addressed in the LVIA of a proposed development, as has been carried out for the Kirkton Energy Park and presented in the LVIA chapter of the EIA Report. In this instance there is very limited visibility of existing, consented and proposed (submitted in a planning application) wind farms within the RVAA study area. Therefore, potential cumulative effects have not been considered further in relation to the RVAA.

# 3.0 RVAA Results

The following table summarises the results of the RVAA, based on the assessment contained with the RVAA sheets (Figures 7.4.2 to 7.4.13). This table shows both the judgement that has been reached for the proposed development and whether the RVAA threshold has been reached.

# Table 3-1: Results of the RVAA for Kirkton Energy Park and Implications of the proposed development (for locations assessed in this RVAA)

No.	Property Name/Group	Step 3: Magnitude of Change	Step 4: Further Assessment of Predicted Change	RVAA Threshold Reached?
1	Ackron	Substantial	Yes	No
2	Golval	Substantial	Yes	No
3	Tigh Na Breac (new property at Loch Earacha)	Substantial	Yes	No
4	Calgary Beg	Substantial	Yes	No
5	Cuilfearne and Achiemore (four properties)	Substantial	Yes	No
6	Achemore, Former Free Church, Cornmill Bunkhouse, Smigel and Craigfillan (five properties)	Substantial	Yes	No
7	Ar Dachadh	Slight	No	No
8	Craigton	Substantial	Yes	No
9	27 Upper Bighouse	Slight	No	No
10	Kirkton Cottage	Medium	No	No
11	Kirkton Farm House	Substantial	Yes	No
12	Ar Dachaidh	Substantial	Yes	No

At three locations: Ardachadh, 27 Upper Bighouse and Kirkton Cottage, the predicted level of effect on visual amenity is less than major and no further assessment of the potential effect on visual amenity is considered necessary.

At a further four locations: Calgary Beg, Craigton, Kirkton Farm House and Ar Dachaidh, it is considered that there would be a Substantial Magnitude of change and Major effect on visual amenity. However, it is considered that the RVAA threshold has not been reached. The specific explanation for this in relation to each property is provided in the RVAA sheets (**Figures 7.4.2** to **7.4.13**). These reasons relate to factors such as the screening provided by intervening vegetation and the orientation of the property relative to the turbines.

At five of the locations (12 residential properties) included in the assessment:

- Akron;
- Golval;
- Tigh Na Breac;

- Cuilfearne and Achiemore (group of four properties); and
- Achimore, Former Free Church, Cornmill Bunkhouse, Smigel and Craigfillan (group of five properties).

A Substantial magnitude of change is predicted, together with a Major effect on visual amenity. Consistent themes are associated with these properties: they are all located on the eastern side of Strath Halladale, they all have a primary elevation facing towards the proposed development and there is no (or limited) vegetation that would restrict views towards the turbines. A Substantial magnitude of change is a consequence of several key factors. The turbines would introduce a new element which would be clearly visible from Strath Halladale, which comprises a rural landscape, of a relatively small scale, including features that are reflections of this scale such as buildings and areas of woodland, which would contrast with the turbines. The turbines would extend along the ridge on the western side of the Strath occupying a large proportion of the view to the west.

However, the turbines would be positioned between approximately 1.6km and 2.4km from the residential properties. They would be set back from edge of the elevated landform on the western side of Strath Halladale, which help provide a degree of separation. A key question in relation to the Residential Visual Amenity Threshold, is whether the proposed turbines would be overbearing or inescapably dominant from the property. In many cases the proposed development would be visible in one direction from the residential properties. This would be a key view, and/or potentially the primary view, from the properties. However, it is not expected that the proposed development would block the only available view from any of the properties included in the RVAA, or overwhelm views in all directions. The design and layout of the proposed development is also an important consideration, with the turbines consistently comprising a simple line of structures with regular spacing and the overlapping of blades has been avoided. Overall, it is considered that the RVAA threshold has not been reached at these properties.

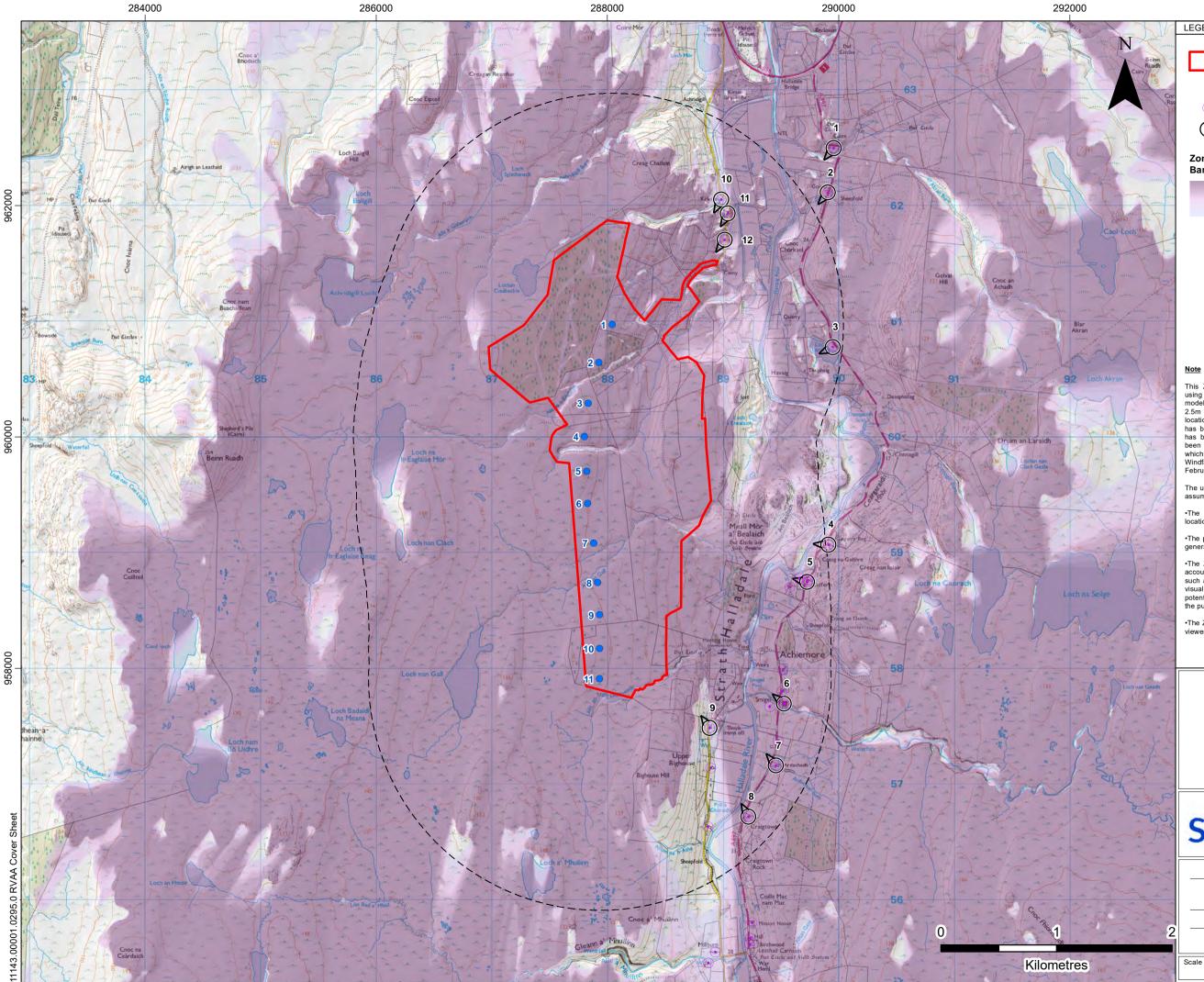
A Major effect on visual amenity is predicted in relation to 16 properties withing Strath Halladale. However, it is considered that this would not result in effects on living conditions that would reach the Residential Visual Amenity Threshold.

# 4.0 Conclusions

Nineteen residential properties were identified as having potential views of the proposed development (see **Table 3-1**), within the RVAA study area. These properties were visited from the nearest publicly accessible location to assess the predicted magnitude of change and the nature of the view which is likely to be obtained of the proposed turbines. There is very limited visibility of existing, consented and proposed (submitted in a planning application) wind farms within the study area, therefore cumulative effects have not been considered in the RVAA.

No properties lie within 1km of the proposed turbines, which contributes to reducing the potential for overbearing or overwhelming effects occurring. However, there are properties within 2km with clear views to the proposed development. Major effects are predicted for 16 properties at between approximately 1.2km and 2.4km. At these properties, it is considered that although the proposed turbines visible would be prominent features, factors such as distance and the layout of the proposed development, together with open views from the properties that would be retained, in directions other than towards the proposed development, would avoid the potential for the RVAA threshold being reached.

# **FIGURES**



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# LEGEND

Application Boundary

Proposed Turbine



**RVAA Assessment Location** 

Zone of Theoretical Visibility (ZTV): Bare Earth Blade Tip 149.9 m High : 11 Turbines Visible

Low : 1 Turbine Visible

### Note

This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 5 dataset (1.5 - 2.5m Root Mean Square Error (RMSE)) up to 15km from turbine locations, and OS Terrain 50 dataset (4m RMSE). Earth curvature has been included in the ZTV calculation and refraction of light bas been applied using SNH quidance settings. The ZTV has has been included in the 21V calculation and refraction of light has been applied using SNH guidance settings. The ZTV has been generated from a viewing height of 2m above ground level which falls within recommendations by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) February 2017 - Version 2.2.

The use of ZTV mapping at this stage is limited and the following assumptions should be noted:

•The ZTV has been generated using the proposed turbine locations for Kirkton Energy Park.

•The proposed turbine tip heights of 149.9m have been used for generating the ZTV.

•The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as settlements and woodland. It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of informing 'on the ground' visual assessment.

•The ZTV colour palette has been specifically developed to assist viewers with reduced sensitivity to red, green and blue light.

# **KIRKTON WIND** FARM LTD

4/5 LOCHSIDE VIEW EDINBURGH PARK EDINBURGH EH12 9DH SLR T: +44 (0)131 335 6830 www.slrconsulting.com KIRKTON ENERGY PARK - EIA **RESIDENTIAL VISUAL** AMENITY ASSESSMENT

ASSESSMENT LOCATIONS

**FIGURE 7.4.1** 

1:30,000 @ A3

Date NOVEMBER 22

# Figure 7.4.2 Location 1: Ackron

### Viewpoint location

 OS reference:
 289958 E 962494 N

 Elevation:
 29.1 m AOD

 Direction of view:
 220°

 Nearest turbine:
 2.448 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	30°
No. blade tips visible:	11
No. hubs visible:	11





# Step 2, evaluation of baseline visual amenity:

Ackron comprises a single residential property towards the northern end of Strath Halladale. It is positioned on the east side of the Strath adjacent to the A897. It is a two storey property with dormer windows in the roof and glazed conservatory/garden room on the south elevation. The primary façade is on the southern side of the building, with oblique views towards the site. Areas of garden lie to the east, west and south, from which there are open views over the adjacent landscape. The view towards the site comprises gently undulating falling land, to the relatively flat floor of the Strath. Beyond is the floor of the Strath, the landform rises to a low and predominately horizonal horizon on the west side of Strath Halladale. The land on the west side of the Strath is largely moorland and has a relatively uniform, simple appearance. A key exception to this comprises the conifer plantation within the north western part of the site, which is visible on the horizon. No operational wind farms are visible.

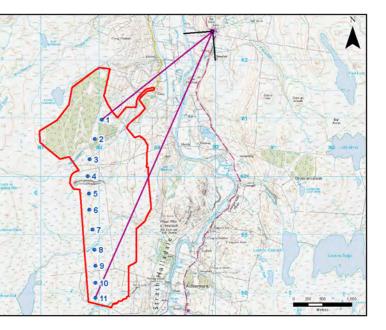
# Step 3, assessment of likely change:

The 11 proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 2.4km, and the whole group occupying approximately 30 degrees of the view horizontally. The direction to the proposed development would be slightly oblique, with the line of turbines gradually receding with distance. The turbines would be evenly spaced forming a relatively simple linear arrangement, with no overlapping of blades of the closer turbines. The four further turbines would have slightly overlapping blade tips. The turbines would be clearly visible above the horizon with associated blade movement apparent, although the lower parts of some towers, particularly turbines 7 to 11 would be obscured by the intervening landform. The proposed turbines would be seen in an upland context, on the ridgeline above the Strath in which the property is located. The turbines would not disrupt the view southward up the Strath, but they would be visible within the primary view from this property. Kirton Energy Park would result in a Substantial magnitude of change at this location. The sensitivity of residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

# Step 4, further assessment of predicted change:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the view from this property. They would be seen in main views from within the property and from the surrounding garden areas and would be slightly oblique to the main direction of view southward along Strath Halladale. The views from this property, up Strath Halladale in a southerly direction are open and expansive. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple, regularly spaced structures with limited potential for overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the property is located. The distance of approximately 2.4km to the nearest proposed turbine and the proportion of the available view that the turbines would occupy in relation to the open views that would be retained in other directions from the property limits the potential for the proposed development to be overbearing. Overall it is not considered that the threshold of residential visual amenity would be reached.

	Strathy South	
	11 10 9 8 7 6 5 4 3 2 1	
	11 10 9 8 7 6 5 4 3 2 1 +++++++++++++++++++++++++++++++++++	
90 degree wireline		Kirkton Approved



# Figure 7.4.3 Location 2: Golval

### Viewpoint location

 OS reference:
 289908 E 962110 N

 Elevation:
 31.07 m AOD

 Direction of view:
 220°

 Nearest turbine:
 2.187 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:36°No. blade tips visible:11No. hubs visible:11





# Step 2, evaluation of baseline visual amenity:

Golval comprises a single residential property towards the northern end of Strath Halladale. It is positioned on the east side of the Strath adjacent to the A897. It is a two storey property with dormer windows in the roof and glazed conservatory/garden room on the south elevation. The primary façade is on the southern side of the building, with oblique views towards the site. Areas of garden lie to the north, west and south, from which there are open views over the adjacent landscape, although a small group of trees restricts view to the south of the property. The view towards the site comprises gently undulating falling land, to the relatively flat floor of the Strath, beyond which the landform rises to a low and predominately horizontal horizon on the west side of Strath Halladale. The land on the west side of the Strath is largely moorland and has a relatively uniform, simple appearance. The conifer plantation within the north western part of the site, which is visible on the horizon. No operational wind farms are visible.

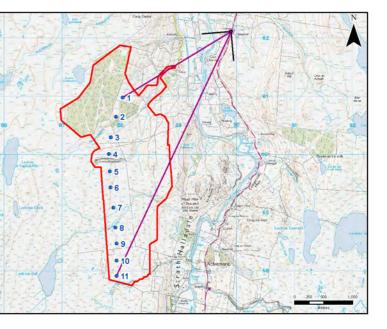
# Step 3, assessment of likely change:

The 11 proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 2.2 km, and occupying approximately 36 degrees of the view horizontally. The direction to the proposed development would be slightly oblique, with the line of turbines gradually receding with distance. The turbines would be evenly spaced with a relatively simple linear arrangement, with no overlapping of blades apart from the two furthermost turbines with slightly overlapping blade tips. The turbines would be clearly visible above the horizon with associate blade movement apparent, although the lower parts of some towers, particularly turbines 7 to 11 would be obscured by the intervening landform. The proposed turbines would be seen in an upland context, on the ridgeline above the Strath in which the property is located. The turbines would not disrupt the view southward up the Strath, but they would occur within the primary view from this property. Kirton Energy Park would result in a Substantial magnitude of change at this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

Step 4, further assessment of predicted change:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the view from this property. They would be seen in main views from within the property and from the surrounding garden areas and would be slightly oblique to the main direction of view southward along Strath Halladale. The views from this property are generally open and panoramic, although a small group of trees to the south of Golval would reduce the visibility of the turbines. These trees would only filter views of part of the proposed development and not prevent visibility. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple, regularly spaced structures with limited potential for overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the property is located. The distance of approximately 2.1 km to the nearest proposed turbine and the proportion of the available view that the turbines would occupy in relation to the open views that would be retained in other directions from the property limits the potential for the proposed development to be overbearing. Overall, it is not considered that the threshold of residential visual amenity would be reached.

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90 degree wireline		Kirkton	Approved



# Figure 7.4.4 Location 3: Tigh Na Breac

### Viewpoint location

 OS reference:
 289950 E 960776 N

 Elevation:
 18.03 m AOD

 Direction of view:
 245°

 Nearest turbine:
 1.918 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	64°
No. blade tips visible:	11
No. hubs visible:	11







# Step 4, further assessment of predicted change:

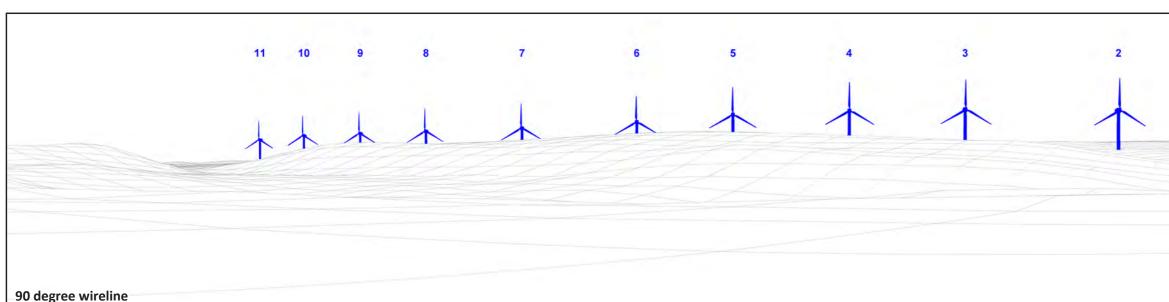
### Step 2, evaluation of baseline visual amenity:

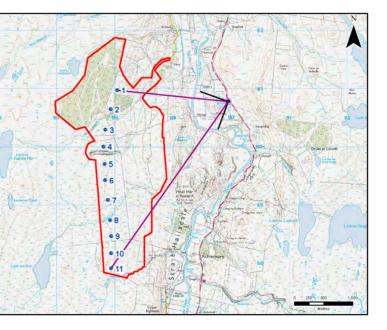
Tigh na Breac comprises a single residential property towards the northern end of Strath Halladale. It is positioned on the east side of the Strath adjacent to the A897 and is a two storey property orientated to the south west, towards Loch Earacha. The primary façade is on the south west side of the building, with views directly towards the site. Areas of garden lie to the north, west and south, from which there are open views over the adjacent landscape. A parking area/area of hardstanding lies to the east. The property is located on the east side of Strath Halladale, with Loch Earacha occupying the foreground of views to the south west. The Loch is surrounded by undulating grassland, beyond which is the rising landform to a low and predominately horizonal horizon on the west side of Strath Halladale. The landform/ low summits at Meall Mòr a' Bealaich, to the south, adds topographic variation to the horizon. The land on the west side of the Strath is largely moorland which is covered with moorland and has a relatively uniform, simple appearance. A key exception to this comprises the conifer plantation within the north western part of the site, which is visible on the horizon. No operational wind farms are visible.

## Step 3, assessment of likely change:

The 11 proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 1.9 km, and occupying approximately 64 degrees of the view horizontally. The proposed development would be present in views directly to the south west, the principal views from the property. The turbines would be clearly visible above the horizon, although the lower parts of most towers (T3 to T10) would be obscured by the intervening landform. The proposed turbines would be seen in an upland context, on the ridgeline above the Strath in which the property is located. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement, with no overlapping of blades. The turbines would not disrupt the view along the Strath to the north and south, but it would fall within the primary view from this property. Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the view from this property. They would be seen in main views from within the property and from the surrounding garden areas and would be seen in direct views to the south west, across Strath Halladale. The property lies in an open location on the banks of Loch Earacha, with unobstructed views available in all directions. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple, regularly spaced structures with limited potential for overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the property is located. The extent of the turbines visible would be reduced by the intervening landform, particularly T4 to T10. Having regard to the distance of approximately 1.9 km to the nearest proposed turbine, and the proportion of the available view that the turbines would occupy in relation to the open views that would be reached.





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# Figure 7.4.5 Location 4: Calgary Beg

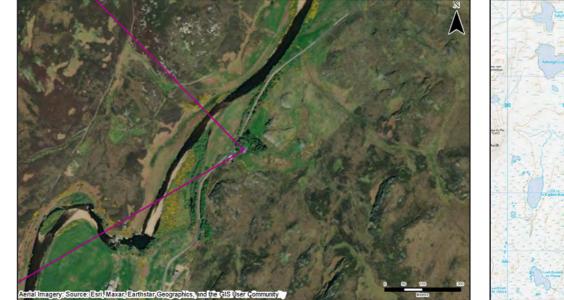
### Viewpoint location

OS reference:	289913 E 959069 N
Elevation:	20.48 m AOD
Direction of view:	275°
Nearest turbine:	2.024 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	63°
No. blade tips visible:	9
No, hubs visible:	6





### Step 2, evaluation of baseline visual amenity:

Calgary Beg comprises a single residential property on the east side of the Strath adjacent to the A897. It is a two storey property with dormer windows in the roof. The primary façade appears to be on the west side of the building, facing towards the site. Calgary Beg is positioned above the A897 accessed by a short drive. There is a small garden to the west of the house, with this potentially extending to the south and east. The garden of the property contains trees and shrubs, which provide a degree of enclosure and restrict views in a westerly direction (towards Kirton Energy Park). The majority of these trees and shrubs are deciduous meaning the level of enclosure will vary with seasonal change, in summer there will be high degree of visual enclosure, whilst in winter the vegetation will filter views towards the proposed development. The property is located where the Strath narrows between adjacent higher ground. The foreground comprises grassland, with some woodland in the floor of the Strath, beyond which are the rising moorland slopes of Meall Mòr a' Bealaich. No operational wind farms are visible.

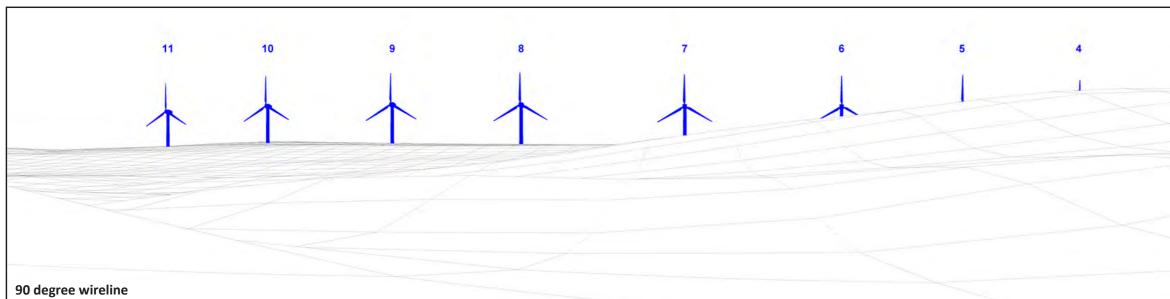
# Step 3, assessment of likely change:

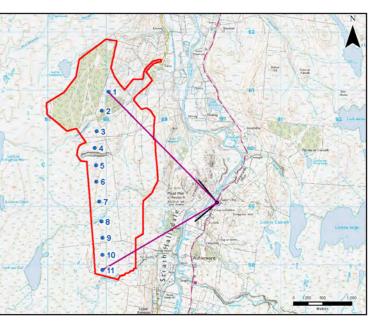
The proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 2 km, and occupying approximately 63 degrees of the view horizontally. The visibility of the northern turbines would be restricted by the landform of Meall Mòr a' Bealaich, with T1 and T2 completely screened and only the blade tips or blades predicted to be visible. The southern turbines within the site would be more visible, with a greater proportion of each seen the further south they are positioned within the site. The turbines that would be seen, particularly T6 to T11, would be clearly visible above the horizon. The proposed turbines would be seen in an upland context, on the ridgeline above the Strath in which the property is located. The turbines would be evenly spaced and their composition would be a relatively simple linear arrangement, with no overlapping of blades.

Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

### Step 4, further assessment of predicted change:

The turbines would introduce large scale, man-made structures, with blade movement which would be apparent in the view from this property. However, vegetation surrounding the property would also filter views towards the site during winter months, with greater restriction to visibility during summer months. The turbine would be seen in main views from within the property and from the surrounding garden areas and would be seen in direct views to the west, across Strath Halladale. The most open views from the property would be from the entrance from the A897. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple line of regularly spaced structures with no overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the property is located. The extent of the turbines visible would be reduced by the intervening landform, particularly T1 to T5, with the wireline showing visibility of T1 and T2 would be provented by the intervening ridge. Having regard to the distance of approximately 2 km to the nearest proposed turbine, and the proportion of the available view that the turbines would occupy in relation to the open views that would be retained in other directions from the property, it is not considered that the turbines would occupy in relation to the open views that would be reached.





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# Figure 7.4.6 Location 5: Culifearne and Achiemore (Farm)

### Viewpoint location

OS reference:	289728 E 958745 N
Elevation:	24.74 m AOD
Direction of view:	285°
Nearest turbine:	1.813 km

### **Ben Sca Extension theoretical visability** Horizontal field of view: 81°

No. blade tips visible:11No. hubs visible:9







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# Step 2, evaluation of baseline visual amenity:

Culifearne comprises a group of four residential properties, Culifearne Croft, Achiemore (Farm) and two static caravans. Culifearne Croft is a two storey property with upper storey windows being rooflights in the pitched roof. It has windows facing multiple direction, with a primary façade appearing to be on the west side of the building, facing towards the site. The garden lies to the west of the house, with the land to the east and south east comprising hardstanding. Achiemore is not readily visible from a publicly accessible location and comprises a two storey property with adjacent agricultural buildings. It is orientated east-west with the primary façade likely to be on the west side of the building, facing towards the site. There are two agricultural buildings located to the west of the house, which may constrain views towards the site, but there are potentially views available between, or above these buildings. One of the static caravans is positioned to the north of Culifearne Croft and the other is positioned within land to the west of the A897. Both have open views in a westerly direction, towards the site. All four properties occupy a slightly elevated position on the east side of the Strath. The landform falls towards the relatively flat floor of the Strath. Beyond which the landform rises to a low and predominately horizonal horizon, with occasional rocky knolls, on the west side of Strath Halladale. Occasional small groups of trees close to the properties interrupt small parts of the horizon. The land on the west side of the Strath is largely moorland and has a relatively uniform, simple appearance. A key exception to this comprises a conifer plantation to the south of the site, which is visible on the horizon. No operational wind farms are visible.



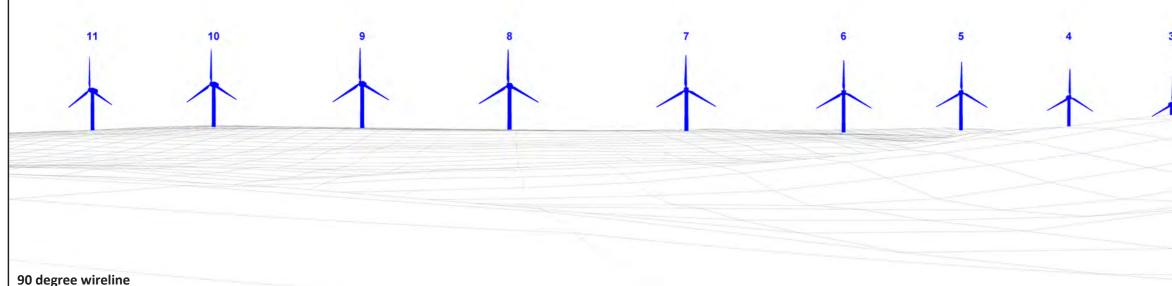
# Step 3, assessment of likely change:

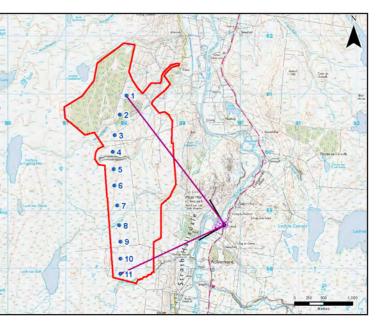
The proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 1.8 km from the nearest property (Achiemore Farm), and approximately 1.8 km from Culifearne. The turbines would occupy approximately 81 degrees of the view horizontally. The visibility of the northern turbines would be restricted by the landform of Meall Mòr a' Bealaich. However, the majority of turbines within the site would be clearly visible, with a greater proportion of each seen the further south they are positioned within the site. The proposed turbines would be seen in an upland context, on the ridgeline above the Strath on the side of which the properties are located. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement, with no overlapping of blades.

Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of these properties.

### Step 4, further assessment of predicted change required:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in views from these properties. They would be seen in main views from within the properties and from the surrounding garden areas and would be seen in direct views to the west, across Strath Halladale. In the vicinity of these properties, the Strath narrows adjacent to Meall Mor a' Bealaich, resulting in shorter distance views, compared with other locations included in this assessment. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple line of regularly spaced structures with no overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the properties are located. The extent of the turbines visible within the northern part of the site would be reduced by the intervening landform, particularly T1 and T2. Having regard to the distance of between approximately 1.6 km and 1.8 km to the nearest proposed turbine, the proportion of the available view that the turbines would occupy in relation to the relatively open views that would be retained in other directions from the properties, it is not considered that the threshold of residential visual amenity would be reached.





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# **Figure 7.4.7**

Location 6: Achiemore, Former Free Church, Cornmill Bunkhouse, Smigel and Craigfillan

### **Viewpoint location**

OS reference:	289529 E 97693 N
Elevation:	33.79 m AOD
Direction of view:	310°
Nearest turbine:	1.609 km

# Ben Sca Extension theoretical visability

Horizontal field of view:	61°
No. blade tips visible:	11
No. hubs visible:	11











# Step 2, evaluation of baseline visual amenity:

This comprises a group of five residential properties, Achimore (named the same on OS mapping as the farm to the north: Location 5), Former Free Church, Cornmill Bunkhouse, Smigel and Craigfillan. Achimore is a two storey property with dormer windows in the roof and glazed conservatory/garden room on the south elevation. The primary facade appears to be on the west side of the building, facing towards the site. The garden lies to the west of the house, with open views over the surrounding landscape. The Former Free Church comprises a converted church. There are rooflights in the pitched roof, although it is not apparent whether there is a first floor level within the house. It is orientated east-west with the primary facade likely to be on the west side of the building, facing towards the site. There is open space around The Former Free Church, but this currently appears to consist of hard standing. Cornmill Bunkhouse occupies a slightly lower position adjacent to Smigel Burn. It is orientated roughly east-west. The west facing elevation is likely to comprise the primary facade of the bunkhouse, but there are relatively few small windows facing in this direction. The land around the bunkhouse comprises rough grassland and hardstanding. Smigel lies to the south of Smigel Burn. There are no clear views of the house from publicly accessible locations, but it appears that the house is vacant or derelict. However, there is a static caravan on the land, which appears to be occupied. The caravan is orientated roughly east-west and it is expected to have open views over Strath Halladale to the west. The land around Smigel appears to comprise rough grassland. Craigfillan comprises a two storey property, but with only a rooflight facing west. The west facing elevation is likely to comprise the primary façade of the house and there is a relatively open garden on the west side of the house. All five properties occupy positions near the floor of Strath Halladale with open views in a westerly direction. The foreground and middle distance comprise the relatively flat floor of the Strath. Beyond which the landform rises to a low and predominately horizonal horizon on the west side of Strath Halladale. There are small areas of woodland and groups of trees within the valley, and some vegetation close to the A897 occasionally breaks the horizon, particularly at Craigfillan. The land on the west side of the Strath is largely moorland and has a relatively

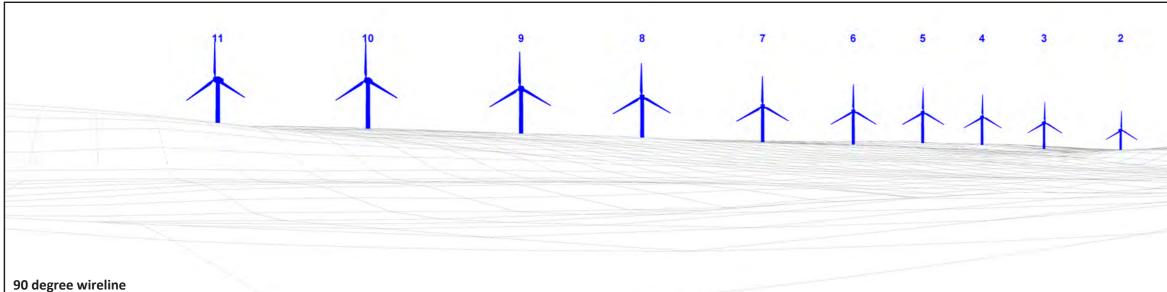
uniform, simple appearance. A key exception to this comprises a conifer plantation to the south of the site, which is visible on the horizon. No operational wind farms are visible.

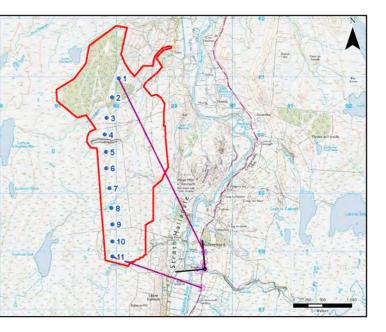
# Step 3, assessment of likely change:

The proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 1.6km and the group occupying approximately 61 degrees of the view horizontally. All 11 wind turbines would be clearly visible above the horizon. The lower parts of some towers, particularly wind turbines in the northern part of the site, would be screened by the intervening landform. The proposed turbines would be seen in an upland context, on the ridgeline above the Strath in which the properties are located. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement, with no overlapping of blades. Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of these properties.

### Step 4, further assessment of predicted change required:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the views from within the properties and from the surrounding garden areas and the southerly turbines would be seen in direct views to the west, across Strath Halladale. Views to the more northerly turbines would be slightly oblique, to the right. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple line of regularly spaced structures with no overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the properties are located. The extent of the site would be reduced by the intervening landform, particularly T1 and T2. Having regard to the distance of approximately 1.6km to the nearest proposed turbine, and the proportion of the available view that the turbines would occupy in relation to the open views that would be reached.





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# Figure 7.4.8 Location 7: Ar Dachaidh

### Viewpoint location

OS reference:	289456 E 957160 N
Elevation:	41.87 m AOD
Direction of view:	320°
Nearest turbine:	1.696 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	47°
No. blade tips visible:	11
No. hubs visible:	11







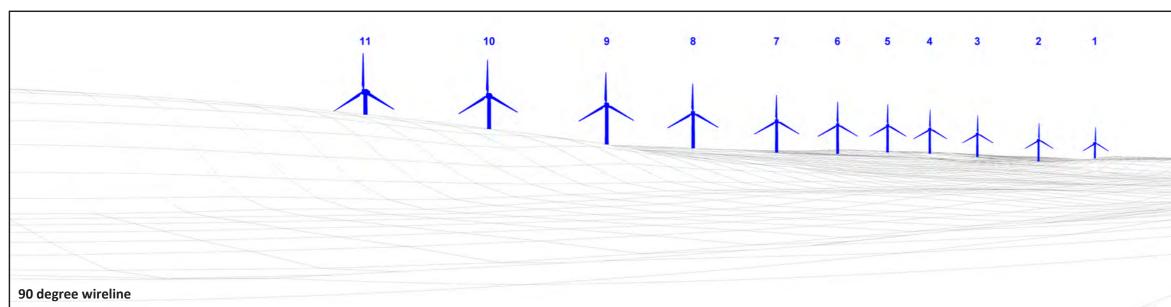
### Step 2, evaluation of baseline visual amenity:

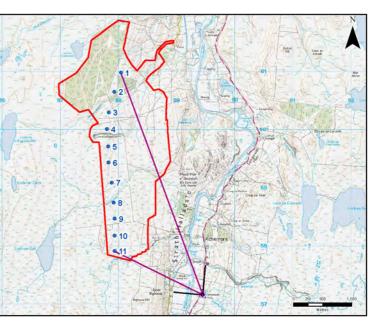
Ar Dachadh comprises a single residential property on the east side of the Strath adjacent to the A897. It is a two storey property with dormer windows in the roof. The primary façade appears to be on the west side of the building, facing towards the site. Ardachadh is positioned slightly above the A897 accessed by a short drive. The garden appears to be principally to the west of the house, but also extends to the north, south and east. The garden of the property contains numerous trees and shrubs, which provide a degree of enclosure and restrict views in a westerly direction (towards Kirton Energy Park). A number of these trees and shrubs are deciduous meaning the level of enclosure will vary with seasonal change: in summer there will be high degree of visual enclosure, whilst in winter the vegetation will filter views towards the proposed development. No operational wind farms are visible.

# Step 3, assessment of likely change:

The proposed Kirkton turbines would theoretically be visible above the skyline, with the closest turbine positioned at approximately 1.7 km, and occupying approximately 47 degrees of the view horizontally. All 11 turbines would be potentially visible, with the lower parts of the towers of some turbines, notably T1, T10 and T11, obscured by the intervening landform. The vegetation surrounding the property would limit the magnitude of the change resulting from the proposed development. In summer months it is expected that the vegetation would considerably restrict or prevent views to Kirton Wind Farm and in winter, views would be filtered by the branches. The key views towards the site would be obtained from the access to the property from the A897. When visible, the proposed turbines would be seen in an upland context, on the ridgeline above the Strath in which the property is located. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement, with no overlapping of blades.

Kirton Energy Park would result in a slight magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Moderate, and not significant effect on visual amenity for the residents of this property. Given that this represents a not significant effect, it is considered that Step 4 of the RVAA is not required.





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# Figure 7.4.9 Location 8: Craigton

### Viewpoint location

OS reference:	289222 E 956718 N
Elevation:	39.48 m AOD
Direction of view:	330°
Nearest turbine:	1.754 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	35°
No. blade tips visible:	11
No. hubs visible:	10





# Step 2, evaluation of baseline visual amenity:

Craigton comprises a single residential property on the east side of the Strath adjacent to the A897. It is a two storey property with rooflight windows at first floor level. The primary façade appears to be on the west side of the building, facing towards the site. Craigton is positioned slightly above the A897 accessed by a short drive. The garden appears to be principally to the west of the house, but also extends to the north, south and east. The lower part of the garden contains numerous trees, which provide a degree of enclosure. However, it is anticipated that the level of the house would mean there would be views to the west side of Strath Halladale (towards Kirton Energy Park) above the trees or between the upper branches. These trees are deciduous meaning the level of enclosure will vary with seasonal change: In summer there will be a higher degree of visual enclosure, whilst in winter the vegetation would filter views towards the proposed development. The view towards the site comprises the relatively flat floor of the strath beyond which the land rises to a low and predominately horizonal horizon on the west side of Strath Halladale. The land on the west side of the Strath is largely moorland and has a relatively uniform, simple appearance. No operational wind farms are visible.

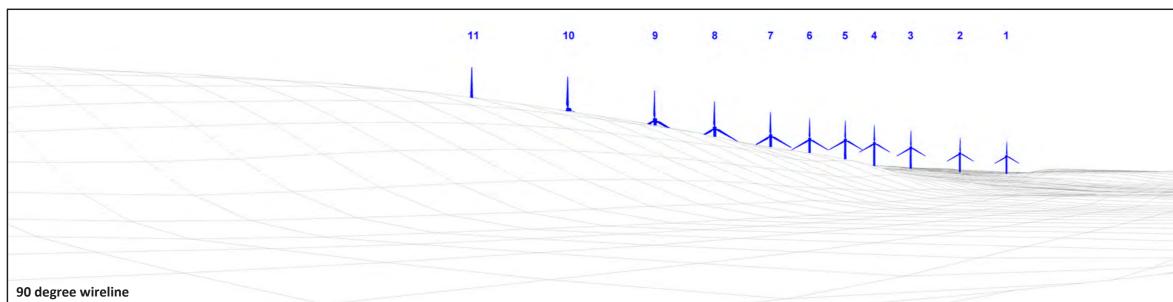
# Step 3, assessment of likely change:

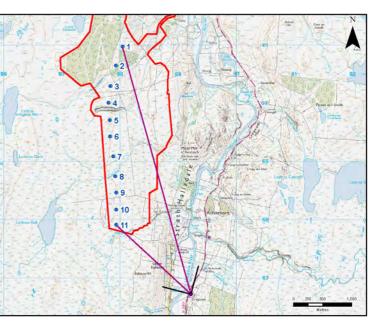
The 11 proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 1.8 km, and occupying approximately 35 degrees of the view horizontally. The direction to the Proposed Development would be slightly oblique to the right, with the line of turbines gradually receding with distance. The lower parts of the closer turbines, particularly T10 and T11, would be screened by the intervening landform, with the blade of T11 and the bade and hub of T10 predicted to be visible. An increasing proportion of the turbines would be seen the further north and more distantly they are located within the site. Notwithstanding this, the turbines would be clearly visible above the horizon. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement, with the blade tips of T4, T5, T6 and T7 just overlapping. The proposed turbines would be seen in an upland context, above the ridgeline to the west of Strath in which the property is located. The turbines would not disrupt the view up or down the Strath, and they would be seen slightly obliquely to the primary view from this property.

Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

### Step 4, further assessment of predicted change required:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the view from this property. The house is generally orientated east-west and the site is located to the north west, meaning the turbines would be seen in oblique views rather than directly across Strath Halladale. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple line of regularly spaced structures with limited potential for overlap between the blades. They would be positioned within the upland landscape to the west, providing a degree of separation from the Strath in which the property is located. The extent of the turbines would occupy in relation to the open views that would be retained in other directions from the property, and the slightly oblique nature of the view towards the site, it is not considered that the threshold of residential visual amenity would be reached.





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# Figure 7.4.10 Location 9: 27 Upper Bighouse

### Viewpoint location

OS reference:	288885 E 957484 N
Elevation:	30.78 m AOD
Direction of view:	325°
Nearest turbine:	1.041 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	1°
No. blade tips visible:	1
No. hubs visible:	0





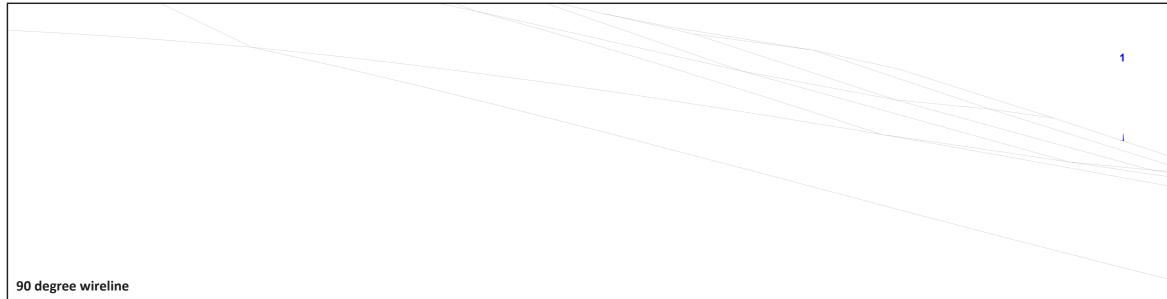
# Step 2, evaluation of baseline visual amenity:

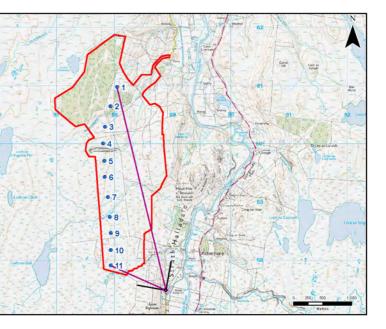
The most northerly property at Upper Bighouse (27 Upper Bighouse) comprises a single residential property on the west side of Strath adjacent to the minor road that terminates at the timber processing business. The property is located just to the south of the timber yard. It appears to comprise a single storey property. The primary façade is on the east side of the building, facing away from the site. The garden appears principally to the west (rear) and south of the house. There are relatively open views over the surrounding landscape from the garden, although some vegetation may constrain views to the west to a limited degree. The view towards the site comprises the relatively steeply sloping landform on the west side of Strath Halladale. Land cover is principally moorland and grassland, with occasional trees/groups of trees. No operational wind farms are visible.

# Step 3, assessment of likely change:

A very limited extent of the proposed Kirkton Energy Park would be visible above the skyline. This is predicted to comprise the blades of T1, which would be seen intermittently as they rotate. T1 would be positioned at approximately 1 km, and would occupy a very small extent of the view horizontally. The turbine would be seen in views to the north west, from locations to the west (rear) and north of the property. The principal views from the house are eastwards, across Strath Halladale, and the proposed development would be located in the opposite direction to these views.

Kirton Energy Park would result in a Slight magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would not result in a Moderate/minor effect on visual amenity for the residents of this property. Given that this represents a not significant effect, it is considered that Step 4 of the RVAA is not required.





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# Figure 7.4.11 Location 10: Kirkton Cottage

### **Viewpoint location**

288984 E 962051 N
9.49 m AOD
210°
1.433 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	12°
No. blade tips visible:	3
No. hubs visible:	0





# Step 2, evaluation of baseline visual amenity:

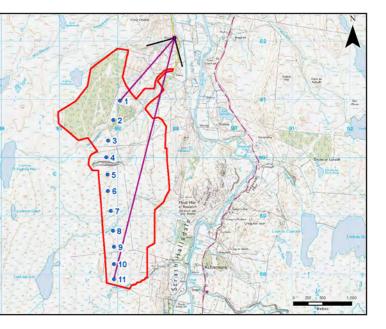
Kirkton Cottage comprises a single residential property on the east side of the Strath adjacent to the minor road from the A836 east of Melvich to Kirkton Cemetery. It is a single storey property. The primary façades appear to be on the north and south sides of the house, with Kirkton Energy Park being located to the south, south west. The garden appears to extend to the north and south of the house. The garden of the property contains numerous trees and shrubs, which provide a degree of enclosure and restrict views in a southerly and westerly direction (towards Kirton Energy Park). These trees and shrubs are deciduous meaning the level of enclosure will vary with seasonal change: in summer there is likely to be high degree of visual enclosure, whilst in winter the vegetation will filter views towards the proposed development. No operational wind farms are visible.

# Step 3, assessment of likely change:

A limited extent of the proposed Kirkton Energy Park would be visible above the skyline. This is predicted to comprise the blades/blade tips of T1, T2 and T3 which would be seen intermittently as they rotate. T1 would be positioned at approximately 1.4 km, and the proposed development would occupy a small extent of the view horizontally. The turbines would be seen in views to the south (rear) of the property. The principal views from the house are to the north and south and therefore the turbines would be seen in a slightly oblique direction.

Kirton Energy Park would result in a Moderate magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would not result in a Major/Moderate effect on visual amenity for the residents of this property. Given that the predicted effect is less than Major, it is considered that Step 4 of the RVAA is not required.

	3 2 1		
90 degree wireline		Kirkton	Approved



# Figure 7.4.12 Location 11: Kirkton Farmhouse

### Viewpoint location

OS reference:	289042 E 961931 N
Elevation:	8.08 m AOD
Direction of view:	210°
Nearest turbine:	1.386 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	34°
No. blade tips visible:	11
No. hubs visible:	11





# Step 2, evaluation of baseline visual amenity:

Kirkton Farm House comprises a single residential property on the east side of the Strath adjacent to the minor road from the A836 east of Melvich to Kirkton Cemetery. It is a single storey property, positioned above the level of the road. The house appears to be principally orientated to the east, towards Strath Halladale, but there are windows positioned on the south elevation, facing towards the site. The garden lies to the south and east of the house, with open views across Strath Halladale. The garden of the property is partly surrounded by trees and shrubs, which provide a degree of enclosure and restrict views in a southerly and westerly direction (towards Kirton Energy Park). These trees and shrubs are deciduous meaning the level of enclosure will vary with seasonal change: in summer there is likely to be higher degree of visual enclosure, whilst in winter the vegetation will filter views towards the proposed development. No operational wind farms are visible.

# Step 3, assessment of likely change:

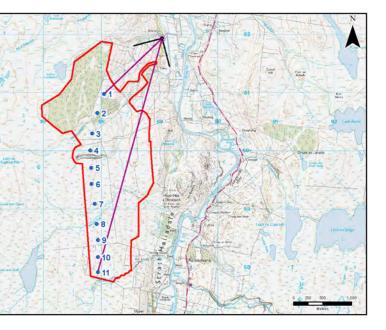
The 11 proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 1.4 km, and occupying approximately 34 degrees of the view horizontally. The direction to the proposed development would be slightly oblique to the right of the main view, with the line of turbines gradually receding with distance. The lower parts of the turbines would be screened by the intervening landform, although the wireline shows they would be clearly visible above the horizon. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement, with the blade tips of the southerly turbines just overlapping. The proposed turbines would be seen in an upland context, above the ridgeline to the west of Strath in which the property is located. The turbines would not disrupt the view up or down the Strath. They would be slightly oblique to the primary view from this property and are likely to be partially screened (depending on the season) by vegetation surrounding the property.

Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

### Step 4, further assessment of predicted change required:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the view from this property. The lower parts of the turbines would be screened by the intervening landform, but upper parts of the towers, hubs and blades would be visible above the ridgeline. The turbines would be seen in views to the south west. Vegetation within/around the garden would provide some restriction to this visibility: filtering views of the turbines in winter and with greater visual screening during summer months. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple line of regularly spaced structures with limited potential for overlap between the blades. They would be positioned within the upland landscape to the south west, providing a degree of separation from the Strath in which the property is located. The key open views from the property are to the east, across Strath Halladale and away from the proposed development, which would limit the potential for overbearing effects. Having regard to the distance of approximately 1.3km to the nearest proposed turbine, and the proportion of the available view that the turbines would occupy in relation to the open views that would be retained in other directions from the properties, it is not considered that the threshold of residential visual amenity would be reached.

	11 10 9 8 7 6 5 4 3 2 1	
90 degree wireline		Kirkton Approved



# Figure 7.4.13 Location 12: Ar Dachaidh

### Viewpoint location

OS reference:	289016 E 961703 N
Elevation:	8.17 m AOD
Direction of view:	215°
Nearest turbine:	1.219 km

# Kirkton Energy Park theoretical visability

Horizontal field of view:	41°
No. blade tips visible:	11
No. hubs visible:	5





# Step 2, evaluation of baseline visual amenity:

Ar Dachaldh comprises a single residential property on the west side of the Strath adjacent to the minor road from the A836 east of Melvich to Kirkton Cemetery. It is a two storey property with dormer windows in the roof, positioned slightly above the level of the road. The house appears to be principally orientated to the south east, towards Strath Halladale. However, there are windows on other elevations, including the south west elevation, towards the site. The garden surrounds the house on all sides, with the largest area lying to the east. The garden comprise a lawn surrounded by a post and wire fence, affording open views across Strath Halladale. The view towards the site comprises an undulating landform on the lower western slopes of the Strath. These slopes are covered by grassland with areas of gorse and occasional trees, and an area of woodland on the horizon. A walled cemetery is visible to the south and to the east there are open views across the floor of the Strath. No operational wind farms are visible.

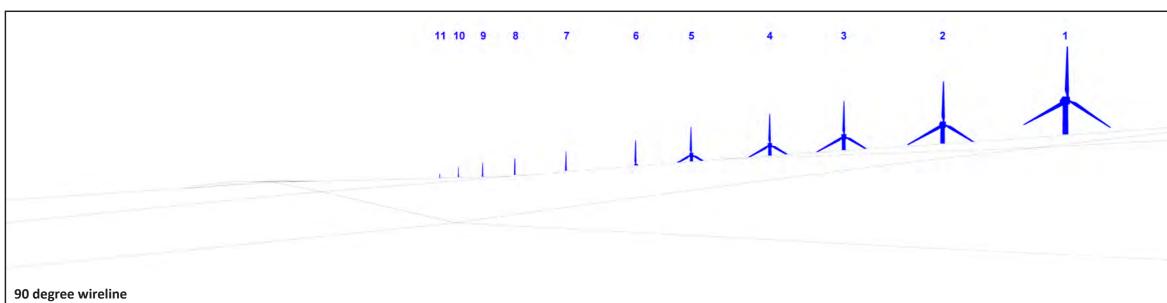
# Step 3, assessment of likely change:

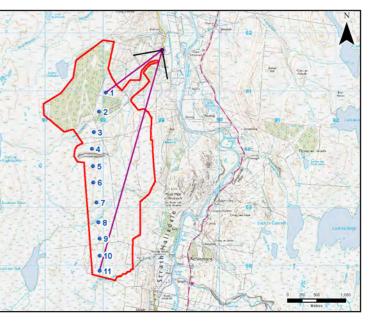
The 11 proposed Kirkton turbines would be visible above the skyline, with the closest turbine positioned at approximately 1.2 km, and occupying approximately 41 degrees of the view horizontally. The direction to the proposed development would be to the south west and away from the principal orientation of the house. The landform would restrict the visibility of the turbines, with the upper parts of the towers, hubs and blades of T1 to T5 visible above the horizon. The blades or blade tips of T6 to T11 are predicted to be seen, with the visibility of the turbines gradually receding with distance. Intervening vegetation extending above the horizon is likely to reduce the visibility of the turbines, but not prevent views. The turbines would be evenly spaced and their composition would form a relatively simple linear arrangement. The turbines would not disrupt the views across or up and down the Strath.

Kirton Energy Park would result in a Substantial magnitude of change in relation to this location. The sensitivity of the residential receptors to the proposed development is High. Given the factors described above, it is considered that the proposed Kirkton Energy Park would result in a Major effect on visual amenity for the residents of this property.

### Step 4, further assessment of predicted change required:

The turbines would introduce large scale, man-made structures, with blade movement clearly apparent in the view from this property. The lower parts of the turbines would be screened by the intervening landform, with this increasing for turbines in the southern part of the site. However, upper parts of the towers, hubs and blades of turbines T1 to T5 would be visible above the ridgeline. They would be seen in views from the south west elevation of the house and from the surrounding garden areas. A Major and significant effect on visual amenity is predicted. However, the turbines would comprise a simple line of regularly spaced structures with limited potential for overlap between the blades. They would be positioned within the upland landscape to the south west, providing a degree of separation from the Strath in which the property is located. The key open views from the property are to the east, across Strath Halladale and away from the proposed development and this would limit the potential for the turbines to be overbearing. Having regard to the distance of approximately 1.2 km to the nearest proposed turbine, the property, it is not considered that the threshold of residential visual amenity would be retained in other and main directions of the views from the property, it is not considered that the threshold of residential visual amenity would be reached.





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