

# **Hare Hill Windfarm Repowering and Extension**

## **Technical Appendix 6.5: Residential Visual Amenity Assessment**

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November 2025

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## List of Abbreviations

Abbreviation	Description
EAC	East Ayrshire Council
EIA	Environmental Impact Assessment
EIA Report	Environmental Impact Assessment Report
HH	Hare Hill Wind Farm (existing)
HHE	Hare Hill Wind Farm Extension (existing)
HHR1	Hare Hill Wind Farm Repowering and Extension (Phase 1 of the proposed Development)
HHR2	Hare Hill Wind Farm Repowering and Extension (Phase 2 of the proposed Development)
km, m, cm mm	Kilometres, metres, centimetres, millimetres
LI	Landscape Institute
lux, microlux	SI unit of illuminance
LVIA	Landscape and Visual Impact Assessment
OS	Ordnance Survey
RVAA	Residential and Visual Amenity Assessment
SNH	Scottish Natural Heritage (now NatureScot)
SPR	ScottishPower Renewables (UK) Ltd
T1, T2, ...	Turbine 1, turbine 2 (and subsequent numbering)
VP1, VP2...	Viewpoint 1, viewpoint 2 (and subsequent numbering)
ZTV	Zone of Theoretical Visibility

# Technical Appendix 6.5: Residential Visual Amenity Assessment

## Introduction

1.1 This is an assessment of the effects on the visual component of residential amenity experienced at local residential properties that is likely to result from the replacement of the existing Hare Hill Windfarm (HH) and Hare Hill Extension Windfarm (HHE) with the Hare Hill Windfarm Repowering and Extension (the proposed Development, in two phases, referred to as HHR1 and HHR2).

1.2 The residential visual amenity assessment (RVAA) is intended to assist the decision maker in a judgement as to the overall impact of the proposed Development on the visual aspects of residential amenity. This assessment explicitly does not consider, or provide information on, other components of residential amenity such as noise, dust, shadow flicker, etc. and therefore needs to be read alongside other sections of the Environmental Impact Assessment (EIA) Report which cover those subjects.

1.3 It is normal to expect significant effects (in the context of EIA regulations) on views and visual amenity from nearby residential properties as a result of introducing a windfarm in any landscape. For properties experiencing a high magnitude of visual change (identified using the methodology set out in **Technical Appendix 6.1**), this study considers the potential effects on the visual component of '*Residential Amenity*' or '*Living Conditions*'.

## Methodology

1.4 The Landscape Institute (LI) has published guidance on RVAA (LI, 2019), upon which this RVAA is based. The LI guidance sets out a four-staged process involving:

- identifying the scope of the assessment and properties to be considered;
- evaluating the baseline visual amenity of the properties;
- assessing changes as a result of the introduction of the development; through to
- judging whether the nature and scale of the effect likely to be experienced is potentially so great so as to reach what in the guidance is called a 'Residential Visual Amenity Threshold'. If this is the case then such effects should be considered by the decision maker as part of the planning judgement.

1.5 The LI guidance supports planners and landscape architects in forming their judgements of the effects on visual amenity at residential properties. The LI guidance sets out that the role of the landscape architects should be limited to advising planners as to whether or not visual aspects of residential amenity should be considered in the planning balance.

1.6 This RVAA is set out following the stages of assessment outlined above. The methodology used to assess the magnitude of change to views is set out in **Technical Appendix 6.1**. All residential properties are judged to have high sensitivity to visual change. Properties identified to have a high magnitude of change are considered further with respect to the residential visual amenity threshold.

1.7 Field surveys were undertaken in November 2022 and August 2024 in order to identify, as far as possible, the orientation and likely views from each property (including main aspects and direction of windows); layout and orientation of the external spaces and gardens associated with the property curtilage; access and likely views from private or shared driveways or access tracks; and composition type and

experience of existing views from each property. The field surveys considered local variations in topography, tree cover and potential screening by buildings within the landscape.

1.8 The assessments were undertaken from the closest publicly accessible points to the properties, with field visits undertaken in April 2024 and March 2025. Visualisations are provided for each property group in the form of wirelines set up to be equivalent to the panoramic view with 90° horizontal angle as per NatureScot visualisation guidance (SNH, 2017).

## Identification of the Scope of Assessment

1.9 The LI guidance suggests that the scope of assessments should be identified on a case-by-case basis, but that for conspicuous structures such as windfarms an initial study area of 1.5-2 km radius may be appropriate (as a potential upper limit to the extent of the study area). Since the publication of the guidance, the size of turbines proposed has continued to increase. In this instance it is deemed appropriate to increase the extent of the study area to 2.5 km from the turbines.

1.10 There are a number of properties within approximately 2.5 km of the proposed Development, as shown on **Figure 6.28**. The properties have been grouped according geographical location and similarity of outlook.

1.11 **Table 1** below sets out the property groups and an initial review of views towards the proposed Development.

*Table 1: Properties and groups considered in the RVAA*

Property reference	Property or group name	Distance to the nearest turbine	Notes on outward views towards proposed Development
Property 1	Craigdarroch (group of 7 properties)	2.4 km (T9)	Group of seven properties, including Craigdarroch, Craigbraneoch and Craig, two of unknown name and one derelict. Craig to the east of the group has the most open outlook. Properties face either northeast or southeast.
Property 2	Blackcraig	1.7 km (T9)	Outlook is west to northwest, views northeast have an outbuilding and woodland plantation in the view.
Property 3	Lochingerroch	2.3 km (T7)	Principal outlook is northwest, farm buildings to east and southeast but some views east are open.
Property 4	Lochbrownan	2.3 km (T7)	Principal outlook is southwest, but rear views northeast are open albeit with woodland nearby.
Property 5	Pencloe	2.7 km (T7)	This property is over 2.5km away, but is included as it has open views across the Afton Valley.
Property 6	Meikle Westland Cottage	2.5 km (T6)	Principal views northwest along Nithsdale.
Property 7	Waistland	2.4 km (T1)	Principal views northwest across Nithsdale, with steep slope up to A76 and woodland that reduces views southwards. Not considered further.
Property 8	Over Cairn (group of 2 properties)	2.1 km (T1)	Over Cairn Farm & March Cottage. Principal views are north and northwest. South is up steep ground with potential visibility.
Property 9	Laigh Cairn	2.2 km (T1)	Principal views east but views south are open.

Property reference	Property or group name	Distance to the nearest turbine	Notes on outward views towards proposed Development
Property 10	Cairn Dairy	2.4 km (T1)	Theoretical visibility but the proposed Development would not be visible due to a sharp rise in the field beyond the A76. Not considered further.
Property 11	High Cairn (group of 2 properties)	2.3 km (T1)	High Cairn and High Cairn Cottage. High Cairn Farmhouse with principal views north, but cottage has principal views east but possible views south.
Property 12	Hillend	1.0 km (T21)	Principal views east or west but open setting. It is noted that this is the landowner's property.

1.12 It is noted that Burntonhill, northwest of the Site is not a residential property; and Marchburn adjacent to the A76 between Over Cairn and Laigh Cairn is an uninhabitable ruin.

### ***Phases of the Proposed Development***

1.13 The proposed Development would be constructed in two phases, as set out in **Chapter 5 Project Description** in the EIA Report. The LVIA considers the potential landscape and visual effects of the phases separately. For the purposes of the RVAA, the proposed Development is considered as if un-phased, with consideration of phases where these may incur different effects on visual aspects of residential visual amenity.

1.14 The proposed Development includes battery storage units, and other ground level infrastructure elements. However, it is the turbines that are most likely to affect visual aspects of residential amenity given the convex nature of the slopes up to the Site.

## **Assessment of Effects on Residential Visual Amenity**

1.15 This section outlines for each property: the existing visual amenity, the likely changes as a result of the introduction of the proposed Development, and for those with a high magnitude of change: an assessment of visual effects judging whether the nature and scale of the effect likely to be experienced is potentially so great so as to reach what in the LI guidance is called a 'Residential Visual Amenity Threshold'.

### **Property 1: Craigdarroch (group)**

OS Grid Reference: 263290 606580

Figure 6.29

Distance to nearest turbine: 2.4 km (T9)

Primary outlooks: North and southeast

HHR1 turbines theoretically visible: 3 hubs, 3 tips

Direction of view to the Site: East

HHR2 turbines theoretically visible: 0 hubs, 0 tips

Description of Property, Context and Existing Views:

This group is set in the narrow Afton Water valley at a point where the Afton and Craig Burn valleys meet. It consists of Craigdarroch, with two single storey properties facing north with farm buildings to the south. One of these properties is derelict. Craig is located on the eastern side of the river, and is a single storey cottage facing north, with a newer property to the east, which also faces north. Both have open surroundings with no screening by trees. A caravan is located close to the track junction, with open views north. A further two properties, one of which is Craigbraneoch are located to the southwest, with southeastern outlooks. Although there are trees around them and to their northeast, some have been lost to storms.

The existing HH turbines are visible from these properties, northwards along the valley on the eastern side, beyond the steep slopes of Blackcraig Hill. HHE turbines are not visible. Afton Windfarm turbines are visible up

the valley to the southwest as several turbines seen on the moorland slopes. The access track to Afton Windfarm climbs the slopes to the southwest of the properties. Sanquhar II (under construction) will be to the south-east as several turbines that are larger than those of Afton.

#### Changes to Views and Visual Amenity:

HHR1 would replace the 11 turbines of HH with three turbines with larger rotors. The two more prominent turbines would have their hub heights at about the level that HH tips are at present, with the third set lower on the horizon. With HH removed, these turbines would form a simpler array but would be larger on the hillside to the north. They would appear to be closer of a similar distance from the properties compared with the turbines of Afton, but would be beyond the horizon with their bases not visible. HHR2 would not be visible such that there would be no change at Phase 2.

Given the presence of HH, Afton, and Sanquhar in views from the properties, the magnitude of change with fewer, larger turbines is judged to be **medium**.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 2: Blackcraig

OS Grid Reference: 263420 608160

Figure 6.30

Distance to nearest turbine: 1.7 km (T9)

Primary outlook: Northwest

HHR1 turbines theoretically visible: 1 hub, 3 tips

Direction of view to the Site: East

HHR2 turbines theoretically visible: 0 hubs, 1 tips

#### Description of Property, Context and Existing Views:

Blackcraig is a property set on the eastern side of the Afton Water valley, with widows and dormer windows facing north and northwest cross and down the valley. Outbuildings are located to the north and northeast. There are woodlands to the south and east, and garden spaces to the west and northwest. The property is approached via a track from the public road up Glen Afton, which has woodland on its south side, but is open to the north. Turbines of HH and HHE are not visible from the property. Afton turbines are seen up the valley to the west of Craigbranach Rig, Sanquhar II (under construction) will be over and to the east of that hill. Pencloe Windfarm (under construction) will be visible as three turbines to the west, beyond the flanks of Boltcraig Hill, likely to be partly screened by forest plantations on that hill when trees regrow following recent felling.

#### Changes to Views and Visual Amenity:

The proposed Development would be seen as one turbine on the high hill horizon to the east of the property, with additional turbine tips low on the horizon. The turbine (T9 of HHR1) would be visible from the approach track and from the rear of the property but would not affect primary views north-westwards. The turbine would not be so close as to be overbearing at the property, and would be beyond the horizon. Forest plantations on the slopes may screen the views of tips and the turbine, but are not considered as permanent screening elements.

Overall the magnitude of change to the views from the property considering the setting of the property, outbuildings and existing views, the magnitude of change is judged to be **medium**.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 3: Lochingerroch

OS Grid Reference: 262300 609450

Figure 6.31

Distance to nearest turbine: 2.3 km (T7)

Primary outlook: North

HHR1 turbines theoretically visible: 3 hubs, 3 tips

Direction of view to the Site: East

HHR2 turbines theoretically visible: 1 hubs, 3 tips

#### Description of Property, Context and Existing Views:

This property is located on the Afton valley floor, between the public road and the river. The residential property is to the north side of a farm steading that forms a courtyard to its south. Views from the property are northwards, and there are views east towards fields and the river.

From this property, four turbines of HH and one blade tip of HHE are visible up the slopes to the east. Afton is not visible, but Sanquhar II will be seen along the valley to the south-east and Pencloe will be visible as two

blade tips over the moorland horizon to the west. The access track to Pencloe windfarm is visible on the hill slopes to the west.

Changes to Views and Visual Amenity:

The proposed Development would be visible as larger turbines on the hill horizon to the east of the property, with greater spacing and extending further south than the existing turbines. The rotors of the turbines would be larger than those of HH and HHE, and the turbines would appear to be closer, but the bases (and therefore infrastructure) would not be visible. The turbines would be of similar size but closer than those of Sanquhar II. Although they would be more prominent in views from the property, the proposed turbines would not be so close as to be overbearing at the property, and would not be seen in primary views northwards. The magnitude of change is judged to be **medium**.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 4: Lochbrown

OS Grid Reference: 262215 609770

Figure 6.32

Distance to nearest turbine 2.3 km (T7)

Primary outlook: Southwest

HHR1 turbines theoretically visible: 1 hubs, 1 tips

Direction of view to the Site: East

HHR2 turbines theoretically visible: 0 hubs, 1 tips

Description of Property, Context and Existing Views:

This property is located on the east side of the river, accessed via a short track and a private bridge. The property appears to face southwest across the valley, with an open garden space to the west, but functional space (including car parking) to the north. Views from rear windows face into the slope to the east, with rocky outcrops and coniferous forest on the steep slopes of Lochbrown Hill.

HH and HHE are not visible. Sanquhar II and Pencloe Windfarms (under construction) will be seen as turbines and blades on the horizon to the south, near the existing blade tips of Afton Windfarm.

Changes to Views and Visual Amenity:

The proposed Development would be seen as one turbine (T9 of HHR1) and 1 blade tip (of HHR2) above the horizon to the southeast. The turbine would be seen between Lochbrown and Blackcraig hills, at a low point on the horizon up the Pollach Burn. It would be seen to be on hills to the east of Glen Afton, where Pencloe is to the west. Given the distance from the property, and intervening hill slopes of Lochbrown Hill, and views across the valley to Pencloe, the magnitude of change as a result of the proposed Development is judged to be **medium**.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 5: Pencloe

OS Grid Reference: 261850 609535

Figure 6.33

Distance to nearest turbine 2.7 km (T7)

Primary outlook: north

HHR1 turbines theoretically visible: 3 hubs, 4 tips

Direction of view to the Site: east

HHR2 turbines theoretically visible: 2 hubs, 4 tips

Description of Property, Context and Existing Views:

This is a two story property is located on the northeast facing slopes of Glen Afton, a little above the public road, accessed via a short track. The property faces north, but there is a large window in the east side of a single story extension/former out-building. There is woodland to the south and west, but the property curtilage is open to the east and north.

HH is visible on the hill horizon to the east across Glen Afton, with one turbine of HHE also visible. Sanquhar II, Afton and Pencloe windfarms are theoretically visible to the south, but woodland around the property restricts views in that direction. The access track to Pencloe windfarm leaves the public road at a shared gateway with this property, and crosses the field below it to the east. This track was busy with construction traffic at the time of field visits (2025), but would normally be relatively quiet.

Changes to Views and Visual Amenity:

The proposed Development would be seen as fewer larger turbines on the hill horizon to the east, and with greater spacing, would extend southwards along the horizon towards but not onto Blackcraig Hill.

During Phase 1, HHR1 would be seen as three turbines beyond Lochbrown Hill, and one turbine further south (T9), rather on its own. One HHE turbine, although in this gap, would be small in contrast and would not create a balanced layout. With HHR2, T18 would resolve the separation of T9 from the rest of the group. The full proposed Development would then form a more balanced array of four turbines and some additional blade tips on the horizon to the east of the property.

Although this property is at a greater distance from the site than properties on the valley floor, its location on the slopes gives it more open views across to the proposed Development site. The proposed Development, like the existing HH ad HHE, would be more visible from here than from other properties below.

Whilst the proposed Development would be visible across the valley, the magnitude of change to the view as a whole would be **medium** as turbines are present on that horizon.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 6: Meikle Westland Cottage

OS Grid Reference: 265260 613050

Figure 6.34

Distance to nearest turbine: 2.5 km (T6)

Primary outlook: Northwest and northeast

HHR1 turbines theoretically visible: 4 hubs, 7 tips

Direction of view to the Site: south

HHR2 turbines theoretically visible: 0 hubs, 0 tips

Description of Property, Context and Existing Views:

This property is located on the north side of the A76, in an open curtilage. Principal views are northwest and northeast across and along Nithsdale, but a bay window and other windows on the southeast side provide views in that direction.

HH is currently seen as one turbine low on the horizon to the southwest edge of the hillside above the property. North Kyle Windfarm is visible from the approach to the property, in the distance to the west. Sandy Knowe is not visible.

Changes to Views and Visual Amenity:

The proposed Development would be seen as turbines on the hill horizon to the south of the property, over moor covered hill slopes. On higher ground and without existing turbines being readily visible, this would be a **high** magnitude of change to views south.

*Conclusion with Respect to the RVAA Threshold:*

The turbines would be prominent in views up the slopes beyond the A76 from the south side of the property, but would not affect views out across Nithsdale which are primary views. Although present, the turbines would not be overbearing at the property and the **RVAA threshold would not be reached**.

## Property 8: Over Cairn (group)

OS Grid Reference: 266715 613030

Figure 6.35 (at Over Cairn Farm)

Distance to nearest turbine: 2.1 km (T1)

Primary outlook: North and east

HHR1 turbines theoretically visible: 6 hubs, 7 tips

Direction of view to the Site: South

HHR2 turbines theoretically visible: 0 hubs, 0 tips

Description of Property, Context and Existing Views:

This property group includes Over Cairn Farm on slopes above and south of the A76, and March Cottage below and to the north of the A76. Principal views are northwards for Over Cairn Farm, with large windows and a garden space. South of the farmhouse there is a yard surrounded by farm buildings, although views up the slopes southwards are possible. March Cottage has large windows to the east looking over a garden space with trees around it. To the west there are functional outdoors spaces (parking and a drying green). Shrubs along the roadside limit views to the south.

HH and Sandy Knowe windfarms are theoretically visible to the southeast, but are screened in views from the farmhouse by outbuildings, and from the cottage by embankments and vegetation along the A76. North Kyle is also screened by local buildings and trees.

#### Changes to Views and Visual Amenity:

The Proposed Development would be seen as large turbines on the horizon to the south of the properties, larger than the existing HH turbines and therefore less likely to be screened by local vegetation or buildings. Some of the turbines are low on the horizon, but others are likely to be visible.

It is judged that, with screening to the views, although the turbines would be visible on the slopes above the properties, they would have a **medium** magnitude of change to views that are not the primary view directions from the properties.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 9: Laigh Cairn

OS Grid Reference: 268150 612850

Figure 6.36

Distance to nearest turbine: 2.2 km (T1)

Primary outlook: East

HHR1 turbines theoretically visible: 6 hubs, 6 tips

Direction of view to the Site: South west

HHR2 turbines theoretically visible: 0 hubs, 1 tip

#### Description of Property, Context and Existing Views:

This property is located to the north of the A76 on a small hillock between two tributaries to the River Nith. It faces east with an open garden space to the east and south, farm buildings to the west and woodland to the north. It is accessed via a short hedge-lined track off the A76. Views south are to the A76 and up rising slopes and the valley of the Polmarlach Burn. Turbines of Sandy Knowe are visible to the southeast, and four turbines of HH are visible up the hill to the southwest.

#### Changes to Views and Visual Amenity:

The proposed Development would be seen as four prominent turbines on the horizon southwards, with two more low on the horizon. They would be seen as larger in the view than the turbines of Sandy Knowe, but to most viewers they would appear closer rather than of larger dimensions (with differences interpreted as being due to perspective). The proposed Development would therefore be a spread of additional turbines across the view southwards from the property, which is not the primary outlook. T6 of HHR1 would be seen further west than other turbines.

The change from HH to the proposed Development would introduce larger turbines with greater spacing than at present, but with existing wind farms visible in the view, the magnitude of change is judged to be **medium**.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 11: High Cairn (group)

OS Grid Reference: 268750 612370

Figure 6.37 (at High Cairn Farm)

Distance to nearest turbine: 2.2 km (T2)

Primary outlook: North and east

HHR1 turbines theoretically visible: 6 hubs, 6 tips

Direction of view to the Site: South west

HHR2 turbines theoretically visible: 0 hubs, 1 tip

#### Description of Property, Context and Existing Views:

This group includes High Cairn Farm on the slopes above the A76 to the south of a small watercourse, and High Cairn Cottage located higher up the slopes near a sheepfold. High Cairn farmhouse has principal views north, but there are woodlands around the garden space and along the watercourse. South of the farmhouse there is a yard surrounded by farm buildings, and a woodland (between the farm and the cottage).

High Cairn Cottage faces east but has a small garden space to the south with limited vegetation. It is accessed via the farm with a track that runs through woodland. There are open views south up the hill, which has coniferous plantations a little above the property. Sandy Knowe turbines are visible to the southeast obliquely up the slopes, with the closest turbine approximately 1.1km away.

#### Changes to Views and Visual Amenity:

The proposed Development would be seen on the slopes up to the southwest of the properties. The proposed turbines would appear smaller in the view than those of Sandy Knowe, but would extend the spread of visible turbines westwards over the horizon. This would not be in the primary view direction from either property. From the farm, views are likely to be obscured by local screening of farm buildings, from the cottage views

would be more open. Forest plantations on the hill slopes above the cottage would contribute to screening, but the turbines would remain visible.

Although the proposed Development would be nearby on the hillside above the properties, the magnitude of change in the context of Sandy Knowe is judged to be **medium**.

*Conclusion with Respect to the RVAA Threshold:* It is judged that the **RVAA threshold would not be reached**.

## Property 12: Hillend

1.16 It is noted that this property belongs to the landowner for the proposed Development. This has not altered the method of consideration of effects on visual amenity.

OS Grid Reference: 268200 608920

Figure 6.38

Distance to nearest turbine: 1.0 km (T21)

Primary outlook: East and west

HHR1 turbines theoretically visible: 9 hubs, 11 tips

Direction of view to the Site: West

HHR2 turbines theoretically visible: 3 hubs, 4 tips

### Description of Property, Context and Existing Views:

Hillend is located in the Kello Water valley to the east of the site. It is orientated to face east down the valley, but with no screening by trees adjacent to the property there are views in other directions also. Forest plantations on surrounding hill slopes limit some views of the horizon, although plantations are at different stages of growth or harvest. Hillend is reached via a long approach track from the northeast, which runs from the western end of Kirkconnel, through and past forest plantations over Sandy Knowe, and into the Kello Water valley. The track is access shared with Sandy Knowe Windfarm, and is Core Path 84 (See **Chapter 6: Landscape and Visual Assessment**), and is therefore not a private track.

From the property itself, there are rear oblique views up the Kello Water and the Polstacher Burn valleys to existing turbines of HH (three hubs and four blade tips) and HHE (four hubs and three blade tips). Views from the front of the property are eastwards down the Kello Water valley with Sanquhar and Sanquhar II Windfarms on the south side and Sandy Knowe on the north side. There are therefore windfarms in all directions. The closest turbines to the property are those of HHE, the closest is approximately 800m away. Sandy Knowe turbines are approximately 1.0km away, and Sanquhar approximately 1.3km away. Those of Sandy Knowe appear the largest and closest.

This property is located in an area that can be described as a forested windfarm landscape.

### Changes to Views and Visual Amenity:

The proposed Development would be located on hills to the west of the property, with turbines seen in views northwest up the Polstacher Burn, and south-westwards up the Kello Water valley.

Phase 1: To the northwest, the four turbines of HH would be replaced by four considerably larger turbines of HHR1, with the closest (T5) being approximately 1.3 km away on Polnagrie Hill. This group of turbines would be seen along the hillslopes north of the property, separated from Sandy Knowe by a slight gap, but relating to them in terms of size (the proposed turbines would be of similar proportions but would appear to be a little closer). To the southwest, the proposed HHR1 turbines would be on the east side of the upper Kello valley with T15 being the closest (approximately 1.2km away). These turbines would be in front of Sanquhar II turbines and would also relate to the Sanquhar turbines in terms of scale, but would appear (and be) closer. In Phase 1, the closest turbines of HHE would remain on the horizon of Dun Rig to the southwest of the property, although it would be more obvious that there are different sizes of turbines in views around the property. In Phase 1 therefore, HHR1 would introduce more large turbines on the horizons around the property. This is judged to be of a **high** magnitude of change.

Phase 2: In Phase 2, the small yet close turbines of HHE would be removed from Dun Rig to the southwest behind the property, and HHR2 would be seen as four turbines of a larger size. The closest turbine, T21 would be large on the horizon, approximately 1.0km from the property. Although it would be further away than the closest of HHE, the higher hub height would mean that the hub would appear to be at the same height in the view as that of the closest turbine of HHE, but it would have a larger rotor and would appear to be closer.

HHR2 would extend the large turbines of HHR1 onto Dun Rig above the property, but would remove the contrasts in size between HHR1 and HHE that would be seen in Phase 1. Screening by forest growth of plantations on Dun Rig may reduce some visibility of lower sections of the turbines but is unlikely to screen all visibility. Overall however, the introduction of the proposed Development (as a whole) would have a **high** magnitude of change.

*Conclusion with Respect to the RVAA Threshold:*

Current views from the property include Sandy Knowe and Sanquhar turbines on either side of the valley in views east from the front of the property, with Sanquhar II under construction. Behind the property there are turbines of HHE on the hill top behind, with more turbines (HH) seen obliquely northwest up a side valley. There are therefore turbines most directions, the closest turbines are between 800m and 1.3km away. The proposed Development would increase the sizes of turbines in two directions where there are turbines already, behind the property; and would introduce additional turbines to the south up the Kello Water valley. The property has an outbuilding at its southern end and there are no views from inside the property in that direction. However the curtilage is fully open. Key changes are the increases in turbine size, and the increase in number of turbines up the Kello Water valley to the south. It is considered that at this property there would be **significant** effects on visual aspects of residential amenity, but that the **RVAA threshold would not be reached**. This is because the property is located in an area that can be described as a windfarm landscape, in a valley between four different windfarms. It has views of existing windfarms so that the proposed turbines would not be new elements to the view. The proposed Development would not be in primary or front views from the property. The character and presence of turbines in views from and around the property would not be altered by the proposed Development, and changes would be turbines being larger and appearing closer to the property.

## Cumulative Effects

1.17 Effects in the context of existing and under construction windfarms are assessed above.

1.18 In the Consented scenario properties in Nithsdale would have views of Lethans and its Extension on the northern side of the valley; Sandy Knowe nearby to the south; and Greenburn and Overhill enlarging the North Kyle group in the distance to the west.

1.19 In the in-planning scenario, Euchanhead Windfarm would also be visible at the head of Glen Afton, and Hillhead (Property 12) would also have views of Herds Hill, Rowancraig and Euchanhead.

1.20 Effects of the proposed Development in the context of cumulative windfarms are not likely to greatly alter the assessment in terms of visual aspects of residential amenity and have not been considered in detail.

## Summary of Findings

1.21 There are 20 properties within 2.5 km of the proposed Development, which have been considered in 12 groups or individual properties. Most properties are located in Annandale and the Afton valley, to the north and west of the site respectively, and most properties look across the respective valleys. Grouped properties have similarity of location, outlook and screening. The property at Pencloe was included (at 2.7 km away) because of open views across Glen Afton.

1.22 The assessment found that whilst there would be medium to high magnitude of change to the views from most properties considered, these would generally not translate into effects on visual aspects of residential amenity such that the properties would reach what in current guidance is called a 'Residential Visual Amenity Threshold' (LI, 2019). For the closest property at Hillend, which lies to the east of the proposed turbine locations and would be 1.0 km from the nearest turbine of Phase 2 of the proposed Development (HHR2), the turbines would be larger than those of HH and HHE and would appear to be closer to the property. It is judged however that the RVAA threshold would not be reached at the property, as it is currently set in what can be described as a forested windfarm landscape.

## References

- Landscape Institute (2019) Residential Visual Amenity Assessment (RVAA). Technical Guidance Note 2/19.
- Scottish Natural Heritage (2017) Visual Representation of Windfarms, Version 2.2.