

Appendix 6.3 Residential Visual Amenity Assessment

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Appendix 6.3 Residential Visual Amenity Assessment (RVAA)

Introduction

This Technical Appendix has been prepared to accompany Chapter 6: in Volume 1 of the Knockcronal Wind Farm (hereafter the Proposed Development) EIA Report. In accordance with the third edition of 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3), the LVIA, contained in Chapter 6, assesses the visual impact of the Proposed Development on public views and public visual amenity.

This Residential Visual Amenity Assessment goes a stage beyond the LVIA by assessing the visual impact of the Proposed Development on private views and private visual amenity. It has been prepared in accordance with the Landscape Institute's Technical Guidance Note 2/19 'Residential Visual Amenity Assessment' (RVAA). This guidance sets out the 'Steps' to be followed when undertaking a RVAA and highlights how it should be informed by the principles and processes of GLVIA3. The purpose of the RVAA is to identify those properties where the effect of the Proposed Development leads to the 'Residential Visual Amenity Threshold' being reached or, in other words, where the effect could be described as overwhelming or overbearing.

This RVAA assesses the likely effects of the Proposed Development on the visual component of residential amenity relating to individual properties within a localised Study Area. The term 'residential amenity' refers to the living conditions at a house, including its gardens and domestic curtilage, which are commonly interpreted to include visual amenity, noise amenity and other factors such as shadow flicker. In a RVAA, such as this, OPEN deals only with the visual amenity aspect of residential amenity, as this is its area of expertise. The effect on noise and shadow flicker are assessed in Volume 1 of the EIA Report in Chapters 10 and 16 respectively.

The purpose of the RVAA is to inform the planning process. It is in this context that the Technical Guidance 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.'*

Approach

The approach set out in the Technical Guidance is based on the four following steps:

- Step 1: Definition of the 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.
- Step 2: Evaluation of baseline visual amenity at properties to be included having regard to the landscape and visual context and the Proposed Development proposed.
- Step 3: Assessment of likely change to visual amenity of included properties in accordance with GLVIA 3 principles and processes.
- Step 4: Further assessment of predicted change to visual amenity of properties to be included forming a judgement with respect to the Residential Visual Amenity Threshold.

Step 1

Step 1 involves defining the extent of the Study Area and establishing the scope of the assessment. In respect of defining the extent of the Study Area, Landscape Institute Technical Guidance Note presents the following advice, *'When assessing relatively conspicuous structures such as wind turbines, and*

depending on local landscape characteristics, a preliminary study area of approximately 1.5 to 2 km radius may initially be appropriate in order to begin identifying properties to include in a RVAA.'

In line with this guidance, the Study Area for the Proposed Development has been drawn out to the larger 2 km radius recommended. Whilst it is recognised that there are further residential properties beyond 2 km that may also experience a significant visual effect, the Technical Guidance Note explains that the 'exceptionally large' Study Areas of up to 3 km are disproportionate further stating that '*The logic for these (exceptionally) large study areas was based on certain findings of LVIA's which identified significant visual effects from 'settlements' or from clusters of residential properties within this range. This fails to recognise that RVAA is a stage beyond LVIA. Consequently, many RVAA's, including those of windfarms with large turbines (150m and taller), have included disproportionately extensive study areas incorporating too many properties. This appears to be based on the misconception that if a significant effect has been identified in the LVIA adjacent to a property at 2.5km it will also potentially lead to reaching the Residential Visual Amenity Threshold.'*

Within the 2 km Study Area, 14 residential properties have been identified using Address Point data and then verified in the field. These are individually numbered on Figures 6.3.1 and 6.3.2 and listed in Table 1 below.

The RVAA has been undertaken for residential properties that appear to be occupied and in used as dwelling houses. Of the properties within the Study Area, Dalmorton Cottage (RVAA property No 5) has been identified as derelict and has therefore not been assessed further in the RVAA.

The ZTV within this 2 km area shows theoretical visibility is extensive across the upland of the site and immediately surrounding area. Reduced theoretical visibility or patches of no visibility are only occasionally found within narrow glens or in the shadow of hills and ridges that intervene between these small areas and the Proposed Development. All of the remaining 13 occupied properties lie within the ZTV of the Proposed Development, as shown on Figures 6.2.1 and 6.3.2, and have therefore been evaluated and assessed in Step 2 and Step 3.

Table 6.3.1 –Properties within 2 km of the Proposed Development Turbines

ID	Property	Grid Ref		Dist. Nearest turbine (km)
1	Craigard	239016	601365	1.86
2	Craigencallie Cottage	238857	601475	1.86
3	Dalmorton Farm	238251	601898	2.02
4	Dalmorton House	238279	601901	2.03
5	2 Dalmorton Cottage	238250	601933	2.05
6	Genoch	239040	601113	1.69
7	Genoch Cottage	239052	600792	1.49
8	Glenlinn Cottage	238126	601555	1.66
9	Knockskae	237281	601390	1.53
10	Linfairn	238158	601208	1.33
11	Palmullan Cottage	238183	601658	1.77

12	Tairlaw Toll Cottage	239791	599523	1.64
13	Tairlaw Toll House	239815	599518	1.66
14	Tallyminnoch	240023	598251	2.02

Step 2

Step 2 involves carrying out an evaluation of the baseline visual amenity at the properties to be included, through a combination of desk study and field work. The key considerations of this evaluation are set out in the Technical Guidance as follows:

- *‘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 or leaving the property, for example from private driveways / access tracks.’*

In the course of carrying out the baseline evaluation, OPEN has surveyed the visual amenity of the residential properties from adjacent public roads, open land or footpaths. The locations of the residential properties within the 2 km Study Area are shown on RVAA Overview plan which includes the blade tip and hub height ZTVs (Figures 6.3.1 and 6.3.2).

RVAA sheets have been prepared for all properties within the Study Area that are considered to require assessment in the RVAA following Step 1. These assessments contain an OS map and aerial photograph of the property, the orientation of the principal facade of each property, the direction of the view/horizontal field of view which would be affected by the Proposed Development and the theoretical visibility of the Proposed Development. The RVAA sheets record details of the baseline residential amenity and the likely visual effects resulting from the Proposed Development. Operational wind farms are included in the baseline evaluation, with these existing windfarms considered in the assessment of effects on residential visual amenity. A 53.5 degree wireline is also presented to illustrate the theoretical visibility of the Proposed Development, Figures 6.3.3 to 6.3.16.

Step 3

Step 3 involves carrying out an assessment of the likely change to the visual amenity of properties by applying the process of assessment advocated by GLVIA3, in which the sensitivity of the receptor is combined with the magnitude of change which would arise as a result of the Proposed Development, to determine whether the effect would be significant or not. The aim of Step 3 is to identify those properties with potential to reach the Residential Visual Amenity Threshold and therefore require further assessment in Step 4. This will only occur where a high magnitude of change is assessed as the threshold describes those effects that are at the extreme where they become overwhelming or over-bearing.

OPEN’s methodology assumes that all occupiers of local residential property within this RVAA typically have a higher sensitivity than other visual receptors. OPEN attaches less weight to views from upper floor rooms in houses compared with ground floor principal rooms, an approach which is reflected in GLVIA3 (paragraph 6.36). The assessment of magnitude of change which would arise from the Proposed Development is determined by the factors influencing magnitude of change on views, the potential change to the outlook from each property, as well as other factors, such as areas of garden ground or property access drives immediately surrounding a property, that would be likely to be affected. The key considerations of this assessment are set out in the Technical Guidance as follows:

- *“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.”*

Technical Appendix 6.1 provides a full description of the criteria that contribute to magnitude of change on views and a description of the magnitude ratings used in this assessment.

The significance of the effect on residential visual amenity experienced at each property is dependent on all of the factors considered in the sensitivity and the magnitude of change resulting from the Proposed Development. These judgements on sensitivity and magnitude are combined to arrive at an overall assessment as to whether the Proposed Development would have an effect that is significant or not significant on residential visual amenity.

Step 4

The difference between significant visual effects and what might be considered to be an unacceptable or overbearing effect on residential visual amenity has evolved through Public Local Inquiry (PLI) decisions over the past decade. The factors considered in such an assessment are widely recognised by professional Landscape Architects and decision makers and are often referred to as ‘the Lavender test’ after the Inspector who first developed the concept. The factors considered in the so called ‘Lavender test’ require a level of visual effect to arise which is greater than a significant visual effect in EIA terms, for the impact to be unacceptable in planning terms. In the Technical Guidance this is referred to as the Residential Visual Amenity Threshold.

The magnitude of effect must be to such a degree that a property would become widely regarded as an unattractive place in which to live. This public interest test therefore has a higher threshold than ‘significant’ in EIA terms. This approach is commonly applied to the assessment of visual effects on residential amenity. The approach has been refined through decisions for Inquiries and Appeals into wind farm applications across the United Kingdom and recognises that, given no person is entitled to a view in law, it is not sufficient for a property to simply sustain a significant visual effect for its residential amenity to be unacceptably harmed. For residential visual amenity to be harmed a higher threshold requires to be triggered, whereby the turbine(s) are at such proximity to a house, or in such number, that they lead to an overwhelming or overbearing effect on the property to the extent that it becomes an unattractive place in which to live. Where this occurs, the matter affects the public interest as such an outcome would be considered to harm the provision of good housing stock.

The Step 4 Assessment differs from the Step 3 Assessment in that it considers whether the visual effects likely to be experienced at the Proposed Development will lead to ‘Residential Visual Amenity Threshold’ being reached, that is to say, that the effects have the potential to be overbearing in respect of the visual amenity of residents at the property.

In the RVAA, while there is no specific definition of Residential Visual Amenity Threshold to base an assessment upon, there are a number of suggested criteria that may be applicable, including 'blocking the only available view from a property', or 'overwhelming views in all directions'; and 'unpleasantly encroaching' or being 'inescapably dominant from the property'. The Step 4 Assessment is triggered when the Proposed Development is found to give rise to a high magnitude of change in the Step 3 Assessment and is reported in the RVAA sheets for applicable properties.

Summary of RVAA Results

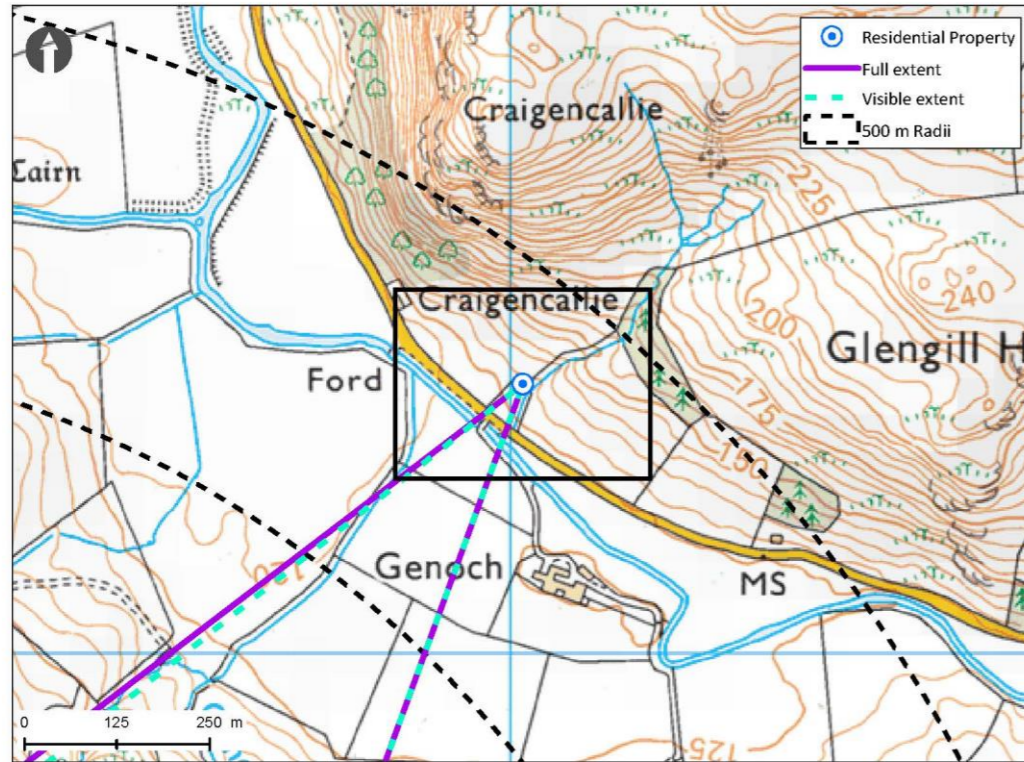
The RVAA identifies no residential properties within 1 km. One of the 14 properties within the 2 km Study Area is derelict (Dalmorton Cottage). Of the 13 remaining residential properties within the Study Area, they all have potential views of the Proposed Development and detailed assessment sheets have therefore been prepared.

For properties 3, 4, 7, 10 and 14, the magnitude of change is assessed as between Medium-Low and Negligible and a Moderate-Minor to Minor level of Not Significant effect has been recorded. For properties 1, 2, 6, 8, 11, 12 and 13, the magnitude of change is assessed as between Medium and Medium-High and a Moderate-Major to Major Significant effect has been recorded. A High magnitude of change has been predicted for property 9 (Knockskae) in the detailed assessment sheets as part of the Step 3 RVAA and is therefore also considered for a Step 4 Residential Visual Amenity Threshold assessment. The conclusion of this Step 4 assessment is that whilst a High magnitude of change and Major Significant Effect is predicted, the nature of the visual impact at this property is not sufficiently adverse to be characterised as an overwhelming or overbearing effect on visual amenity.

In conclusion, whilst the RVAA has assessed 8 of the 14 properties within the Study Area to have Significant visual effects, the Proposed Development will not lead to the 'Residential Visual Amenity Threshold' being reached. That is to say, that none of the effects assessed have the potential to be overbearing in respect of the visual amenity of residents at the property.

1: Craigard

Property No. 1: Craigard



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 239016E 601365N

Distance to Nearest Turbine: 1.86 km

Elevation: 130 m AOD

Farmhouse		Stone-built	X	1 Storey		Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey	X	Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	

Step 2: Existing Residential (Visual) Amenity

Craigard is located close to the minor road between Straiton and Tairlaw, close to the Genoch entrance. It is accessed by a short driveway off this minor road and is locally elevated on the sloping land to the north-east of the road. The front garden slopes down to the road with trees and shrubs lining the north and south boundaries. The garden vegetation combines to partially restrict views from the property to the north and south from the front of the property and front garden area. The property is orientated on a north-east to south-west axis with its principal aspect from the front of the house to the south west. The property has two bay windows on the front elevation with a small dormer in the roof above the front door. The views from the front of the property are restricted by garden vegetation such that views of the Girvan Valley are either filtered through the trees or entirely obscured. Views from the driveway and front garden are similarly restricted. The garden to the rear is more open although views to the west are limited by the property itself and garden trees found in the front garden.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 32°

No of Blade Tips Theoretically Visible: 7

No of Turbine Hubs Theoretically Visible: 3

The wireline shows that seven of the turbines will be theoretically visible from this property. Three with top of towers and four with blade only visibility (two of which with only blade tops visible). The Proposed Development turbines would be located at 1.86 km to the south-west of the property. The substantial amount of screening provided by the garden trees and vegetation would restrict views of the Proposed Development from this property, particularly in summer months when trees are in full leaf. Views from the garden and driveway would be similarly restricted. However, due to the orientation of the property, its elevation and alignment of the garden, the Proposed Development would be partially visible through the trees to the south west and whilst the large roadside trees to the south west of the minor road further restrict views towards the Proposed Development it is predicted that the Proposed Development would be partially visible from this property.

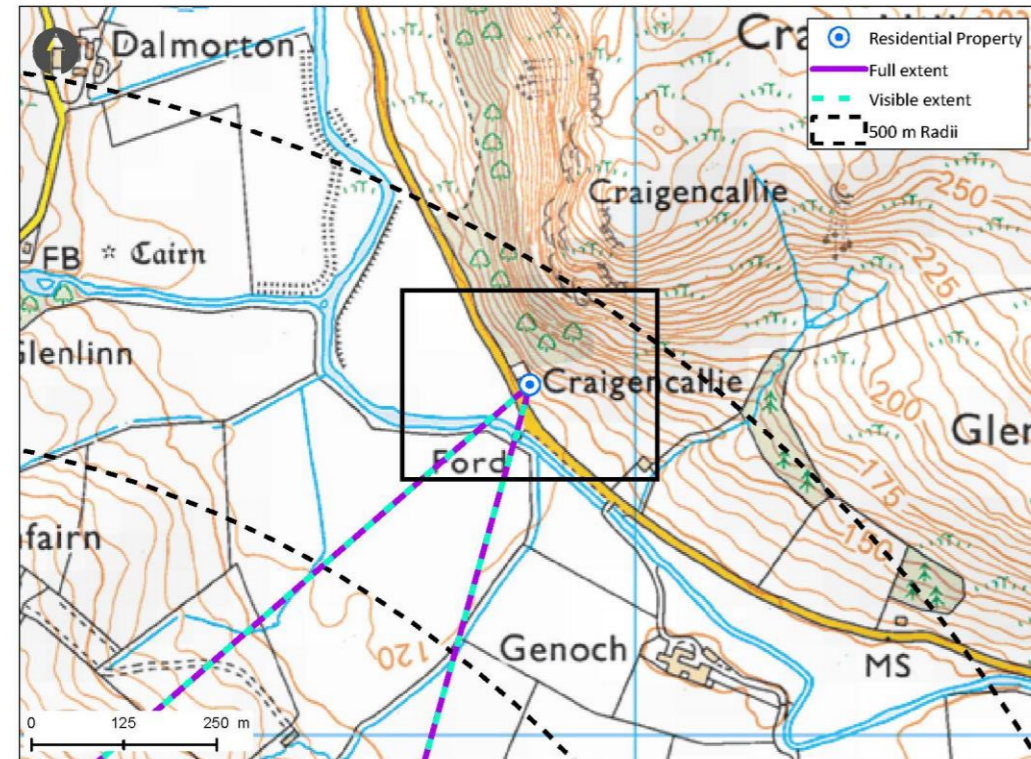
The magnitude of change is predicted to be Medium which when combined with the High sensitivity would result in a Moderate-Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

2: Craigenallie Cottage

Property No. 2: Craigenallie Cottage



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 238857E 601475N

Distance to Nearest Turbine: 1.86 km

Elevation: 125 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings	X	Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

Craigenallie Cottage is located close to the minor road between Straiton and Tairlaw, slightly to the north of the Genoch access road. It is accessed directly from this minor road. The property is orientated on a north-east to south-west axis with its principal aspect from the front of the house to the south west. Both the front and rear gardens are narrow following the orientation of the minor road with the land to the rear of the property which is steeply sloping. Mature trees are found along the rear and north side boundaries. The property has a series of small outbuildings located to the north, south and east (including a large cabin to the north) and drystone walls feature along key boundaries. The property has relatively small windows although does feature a bay window. Views to the south west across the Girvan Valley are open and the upland ridge on which the site is located can be seen through the tops of intervening trees of field boundaries in neighbouring fields. Views from the front garden are similar in outlook although the garden to the rear has more restricted views due to the property itself and the steeply sloping land to the east.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 33°

No of Blade Tips Theoretically Visible: 8

No of Turbine Hubs Theoretically Visible: 4

The wireline shows that eight of the Proposed Development turbines would be theoretically visible from the property. Two with top of towers, four with blade only visibility (two of which with only the very tops of blades visible) and two with hubs sitting close to the horizon. Given the openness of the south-west aspect, actual visibility will be very similar. Views from the north-east facing interior spaces will remain unaffected, while views from the south-west facing interior spaces will be affected by the Proposed Development. At a range of 1.86 km to the closest proposed turbine, the two turbines with top of tower above the horizon will appear as large scale and dynamic structures. The other turbines visible from this property would appear less prominent due to their restricted visibility, all of the visible turbines would appear to sit beyond the upland ridgeline and above the valley slopes of the Girvan valley.

Views from the front garden would be similarly affected with potentially fuller visibility experienced from these outdoor situations. Views from the rear garden would be more restricted due to screening from the property itself.

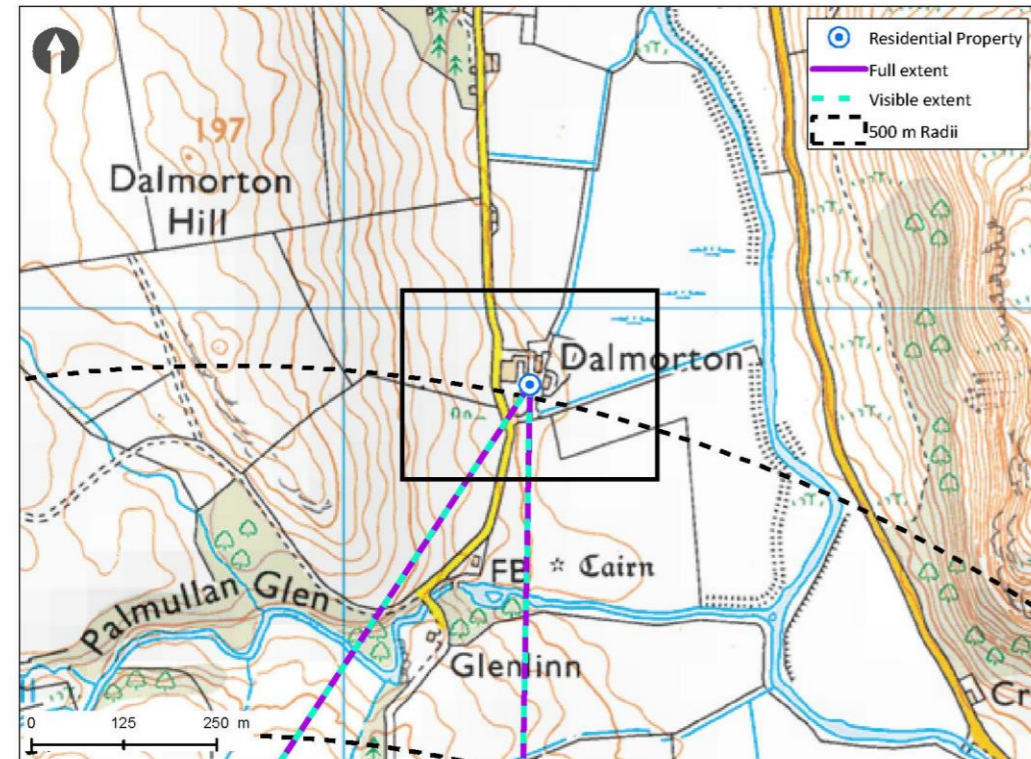
The magnitude of change is predicted to be Medium which when combined with the High sensitivity would result in a Moderate-Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

3: Dalmorton Farm

Property No. 3: Dalmorton Farm



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 238251E 601898N

Distance to Nearest Turbine: 2.02 km

Elevation: 125 m AOD

Farmhouse		Stone-built	X	1 Storey		Derelict		Farmyard	X
Detached	X	Brick-built		1.5 Storey	X	Uninhabited		Front Garden	
Semi-detached		Render	X	2 Storey		Garage(s)	X	Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings	X	Side Gardens	

Step 2: Existing Residential (Visual) Amenity

Dalmorton Farm is located to the west of the Water of Girvan between the bridge at Craigfad and Palmullan Glen. It is part of a cluster of properties known collectively as Dalmorton which are situated around the farm. The property is orientated on a north-south axis with views from the front of the property north across the farm courtyard, garage and outbuildings and views south across the rear garden. Large farm sheds are located to the west of the property and Dalmorton House is located to the east. Mature trees surround the Dalmorton properties and are particularly large in the stand of trees to the south, which also define the southern edges of the rear garden to this property. The trees to the south west are well spaced and filtered views through these trees from the property is possible, particularly in winter months.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 33°

No of Blade Tips Theoretically Visible: 9

No of Turbine Hubs Theoretically Visible: 7

The wireline shows that all nine of the Proposed Development turbines would be theoretically visible from the property at a range of 2.02 km to the closest proposed turbine. Two with blade only visibility, one with hub sitting close to the horizon and six with towers visible to varying degree (only one of these is more than half tower visible but is also set lower within the upland and so does not appear as the tallest).

Actual visibility from the property would be restricted by intervening mature trees and garden vegetation. Whilst views through these trees towards the site is possible, the Proposed Development would only be visible as filtered through these intervening trees. The views would be more limited in summer months when trees are in full leaf. Views from the garden would be similarly restricted and views from the driveway are restricted by the property itself.

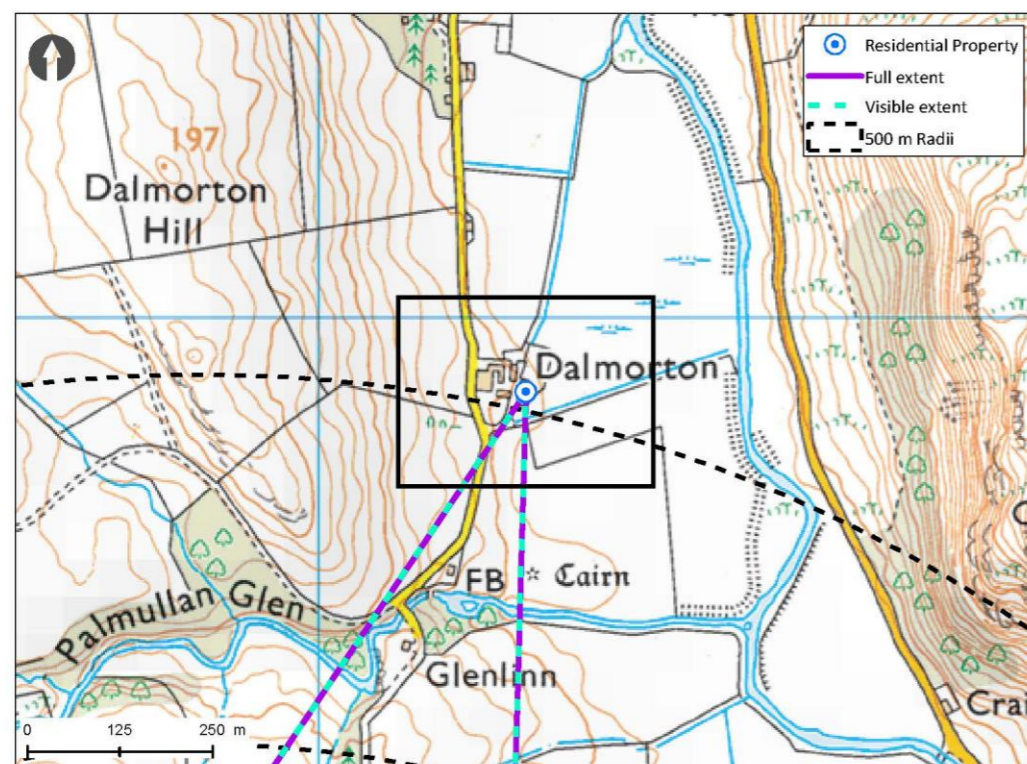
The magnitude of change is predicted to be Low which when combined with the High sensitivity would result in a Moderate-Minor and Not Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

4: Dalmorton House

Property No. 4: Dalmorton House



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 238297E 601901N Distance to Nearest Turbine: 2.03 km Elevation: 123 m AOD

Farmhouse		Stone-built	X	1 Storey		Derelict		Farmyard	X
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey	X	Garage(s)	X	Rear Garden	
Terraced		Timber-clad		Conservatory		Outbuildings	X	Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

Dalmorton House is located to the west of the Water of Girvan between the bridge at Craigherron and Palmullan Glen. It is part of a cluster of properties known collectively as Dalmorton which are situated around the farm. The property is orientated on a west-east axis with its principal aspect from the front of the house to the east across the valley of the Water of Girvan, there are no windows in the south facing gable. The front garden is located on this aspect to the east stretching around the side of the property to the north. The garage and driveway are located to the south. Mature trees surround the Dalmorton properties and are particularly large in the stand of trees to the south. Views to the west are limited by the buildings and farm sheds associated with Dalmorton Farm. Views to the east across the Water of Girvan Valley are more open from upper floors where the garden and boundary trees do not intervene.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 33° No of Blade Tips Theoretically Visible: 9 No of Turbine Hubs Theoretically Visible: 7

The wireline shows that all nine of the Proposed Development turbines would be theoretically visible from the property. Two with blade only visibility, one with hub sitting close to the horizon and six with towers visible to varying degree (only one of these is more than half tower visible but is also set lower within the upland and so does not appear as the tallest). There are no views south towards the site from the property, the views to the east from the principal façade of the property would be unaffected by the Proposed Development and views from the garden to the south are restricted by garden / boundary trees.

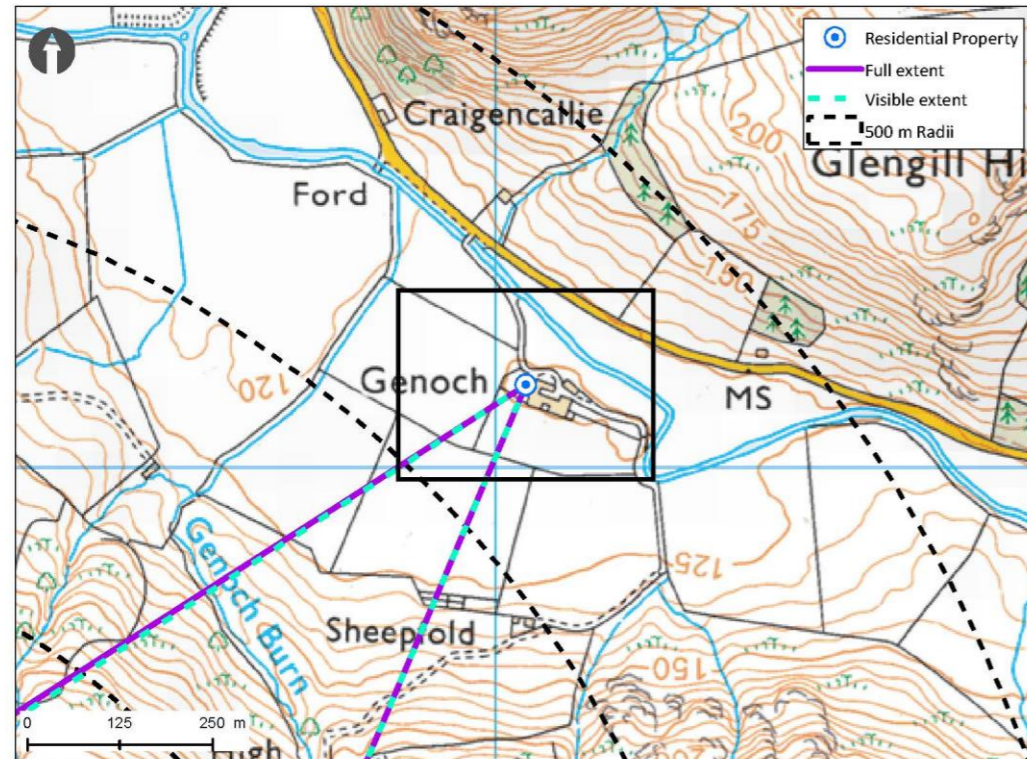
The magnitude of change is predicted to be Negligible which when combined with the High sensitivity would result in a Minor and Not Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

6: Genoch

Property No. 6: Genoch



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 239040E 601113N

Distance to Nearest Turbine: 1.69 km

Elevation: 126 m AOD

Farmhouse	X	Stone-built	X	1 Storey		Derelict		Farmyard	X
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render		2 Storey	X	Garage(s)		Rear Garden	
Terraced		Timber-clad		Conservatory		Outbuildings	X	Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

Genoch is located close to the minor road between Straiton and Tairlaw, from which it is accessed. It is a large two storey property on the northern banks of the Water of Girvan valley set within the large trees that form the west and north boundaries and also within the context of the riparian trees of the Water of Girvan. The house is an 'L' shape with the front of the house and principal façade facing to the north-west along the Water of Girvan valley. The gable end and south west façade has more open views towards the slopes of Halfmark Rig and the remains of High Genoch. The main garden area is to the west but it also wraps around the side of the property to the south. A series of outbuildings and large farm sheds are found to the east along with a courtyard and farm access. Access to the property from the minor road is along a lengthy driveway that crosses the Water of Girvan and has open views to the south.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 34°

No of Blade Tips Theoretically Visible: 7

No of Turbine Hubs Theoretically Visible: 2

The wireline shows that seven of the Proposed Development turbines would be theoretically visible from the property at a range of 1.69 km to the closest proposed turbine. Two with blade only visibility, one with hub sitting close to the horizon and one with top of tower. Three of the seven visible turbines would only be visible as very small blade tips. At a range of 1.86 km to the closest proposed turbine, the most visible four turbines and blades would appear as large scale and dynamic structures although the three blade tips would be barely discernible. All of the visible turbines would appear to sit beyond the upland ridgeline and above the valley slopes of the Girvan valley.

Actual visibility from the property would be restricted by intervening mature trees, however, views through these trees towards the site is possible in views from the south west facing façade and also at an oblique angle from the principal north west facing façade.

In these views the Proposed Development would be visible as filtered through these intervening trees, the views would be more limited in summer months for the principal façade when trees are in full leaf but would still be possible between the trees when viewing from ground floors, from the garden area or from the easternmost parts of the south west facing facade. Views from the access road and driveway are open.

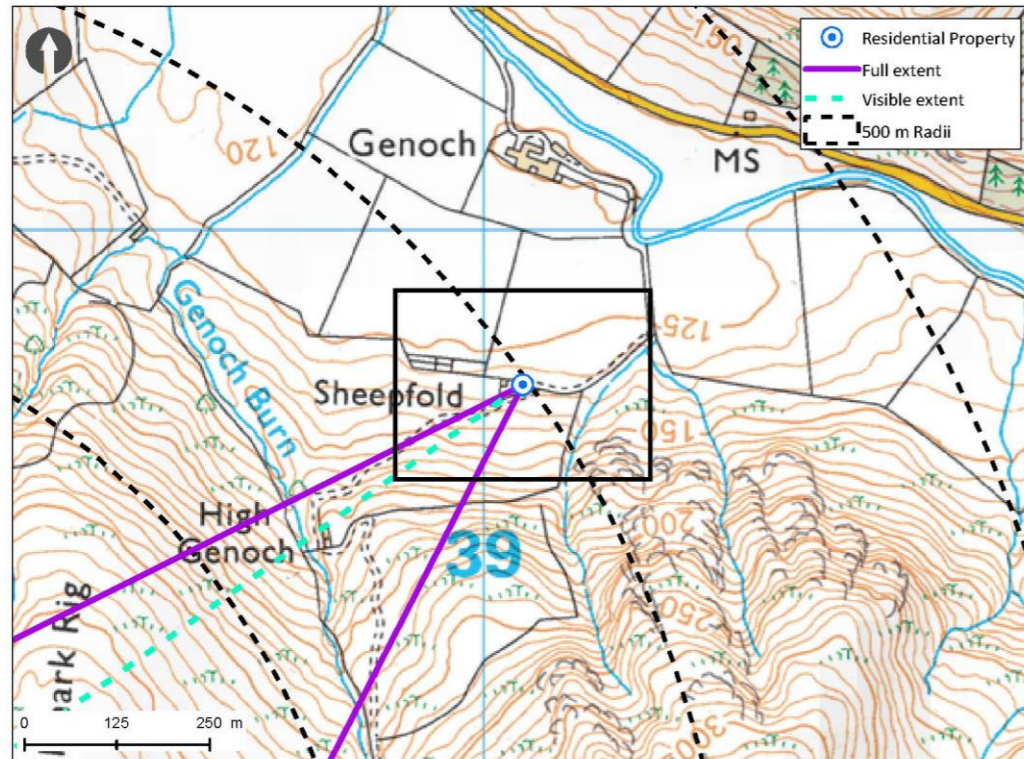
The magnitude of change is predicted to be Medium which when combined with the High sensitivity would result in a Moderate-Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

7: Genoch Cottage

Property No. 7: Genoch Cottage



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 239052E 600792N

Distance to Nearest Turbine: 1.49 km

Elevation: 136 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render		2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	

Step 2: Existing Residential (Visual) Amenity

Genoch Cottage is located to the south of Genoch at the base of the slopes of Genoch Inner Hill. It is accessed via the Genoch access road and off the minor road between Straiton and Tairlaw and through the Genoch farmyard. It is a small single storey property with small windows and an entrance porch at the front.

The property is orientated on a north to south axis with the front of the house and principal façade facing to the north towards Genoch and across the Water of Girvan valley. The main garden area is to the north at the front of the cottage with only a small garden to the south. Mature trees are found on the east and west sides of the property. Views to the north are open across the intervening grazing land and towards the steep slopes of Craigencallie and Glengill on the opposite sides of the Water of Girvan valley. The view south towards the site is a contained view due to the close proximity of Gench Inner Hill, for which even the lower slopes are steeply sloping.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 1° No of Blade Tips Theoretically Visible: 1 No of Turbine Hubs Theoretically Visible: 1

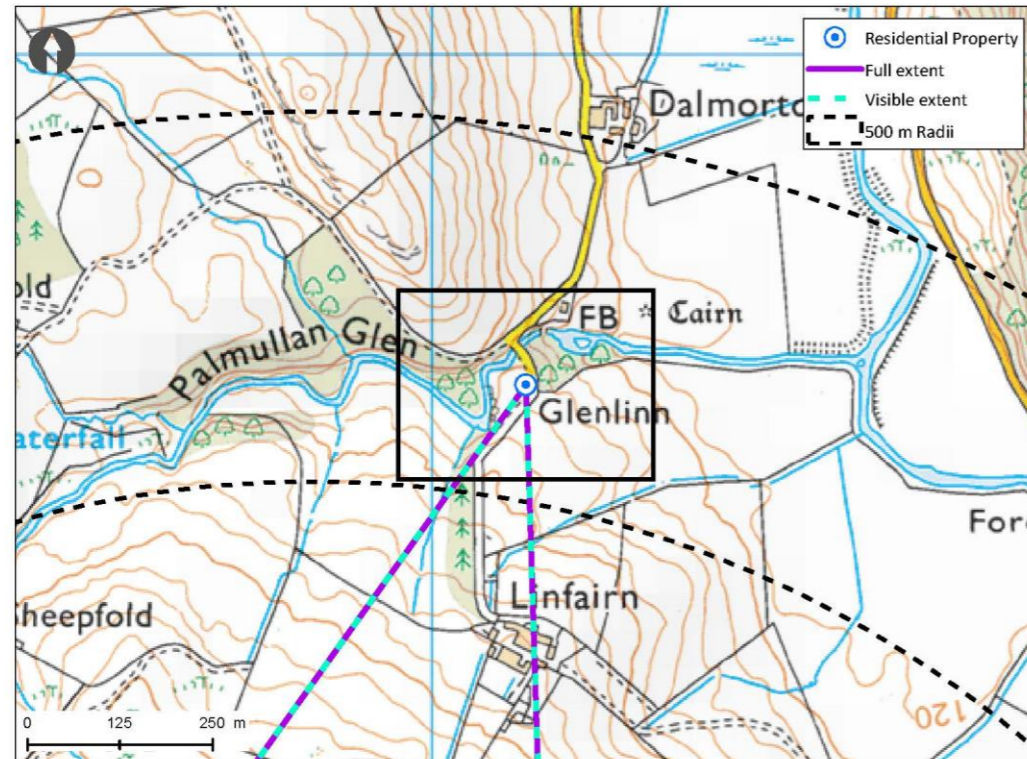
The wireline shows that only one turbine would be visible from this property with its hub appearing close to the horizon in the view to the south-west. The turbine would be visible from the small garden to the rear of the property and on approach to the property from the access track, however, the trees to the west of the property on the property boundary obstruct the view to this turbine from the cottage itself. The magnitude of change is predicted to be Low which when combined with the High sensitivity would result in a Moderate-Minor and Not Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

8: Glenlinn Cottage

Property No. 8: Glenlinn Cottage



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 238126E 601555N

Distance to Nearest Turbine: 1.66 km

Elevation: 139 m AOD

Farmhouse		Stone-built		1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built	X	1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

Glenlinn Cottage is located to the west of the Water of Girvan on the banks of the Palmullan Burn. It is a single storey bungalow which is accessed via the access track to Linfairn. The property is orientated on a north-west to south-east axis with its principal aspect from the front of the house to the south-east across the valley of the Water of Girvan. The garden area is largely grass with a small driveway / parking area to the front.

Mature trees and woodland are found to the west and north following the Palmullan Burn, providing the property with shelter and a sense of refuge, emphasising the view along the valley to the south-east. In the view towards the site to the south west, the various farm buildings and large sheds of Linfairn Farm sits against the lower slopes of Wee Benyaw in the mid distance.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 37°

No of Blade Tips Theoretically Visible: 9

No of Turbine Hubs Theoretically Visible: 5

The wireline shows that all nine of the Proposed Development turbines would be theoretically visible from the property at a range of 1.66 km to the closest proposed turbine. Four with top of towers to varying degree, three with only small blade tips, one with hub sitting close to the horizon and one with full blade but no hub visible. All of the turbines would be visible beyond the upland ridgeline horizon to the south-west. The Proposed Development turbines would be visible from the south side elevation of the property and for much of the garden and driveway. However, the principal view to the south-east from the front of the property would be unaffected. The Proposed Development turbines would appear behind the slopes of Wee Benyaw and Knockcronal in this view within a clearly upland context that is set back from the edges of the steep sloping valley sides. Linfairn farm is visible in the same view direction providing a known scale indicator, however, the Proposed Development is sufficiently separated by the intervening Wee Benyaw in this view and clearly upon an upland ridge so as to avoid the existing lower elevated features in the landscape being diminished by the scale of the Proposed Development turbines.

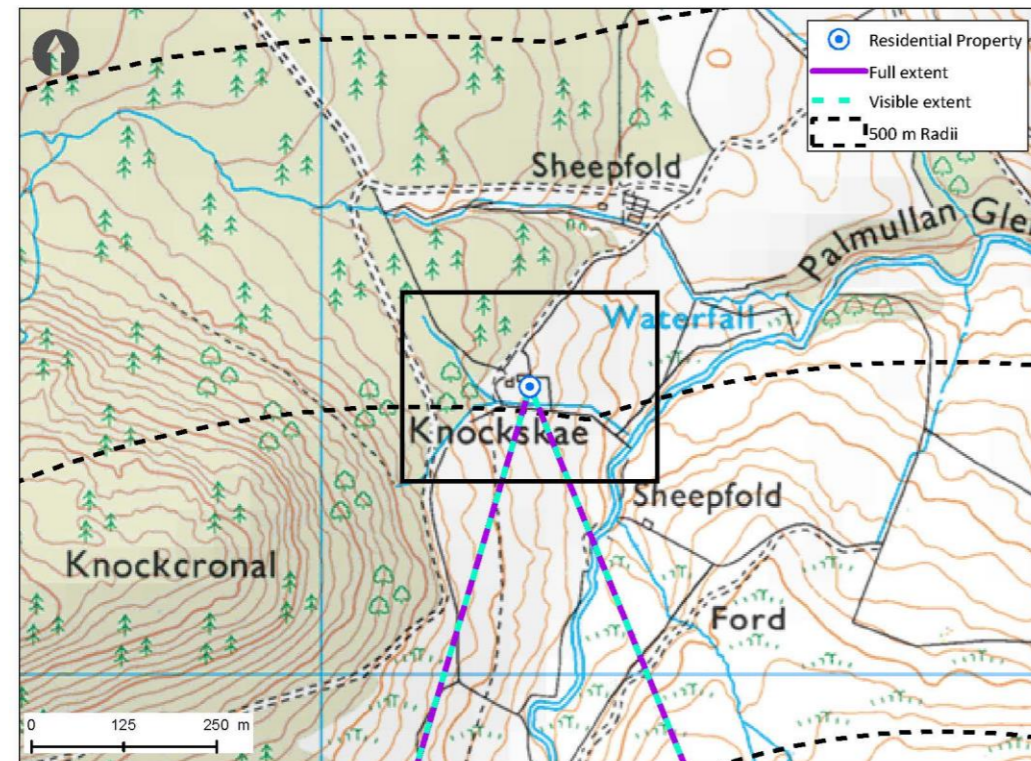
The magnitude of change is predicted to be Medium-High which when combined with the High sensitivity would result in a Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

9: Knockskae

Property No. 9: Knockskae



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 237281E 601390N

Distance to Nearest Turbine: 1.53 km

Elevation: 191 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings	X	Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

Knockskae is located to the west of Linfairn farm against the eastern slopes of the Knockskae to the west. The property is orientated on a north to south axis, comprising 1.5 storeys and has south facing dormer windows in the roof. The main garden area is to the south of the property and a large outbuilding is located to the north. The property is set within surrounding trees but they do not form a complete visual screen and as such views are available through these trees to the surrounding landscape. The trees to the south restrict views south from the property but do allow filtered views to the landscape beyond including views along the upper Water of Girvan Valley to the south east. Views across other parts of the Water of Girvan valley and towards Linfairn are possible to the east and north east, albeit as from the garden only as the property has no east facing windows.

The views from this property south towards the site include the foreground of upland pasture separated by dry stone walls and giving way to the rougher upland moorland slopes and the undulating ridgeline of connected hills that include Knockcronal and Big Benyaw in the mid distance. Further into the distance, the ridgeline extends to the south east across Wee Benyaw, Halfmark Rig and Genoch Inner Hill, for which the steepness of the valley slopes can be seen dropping into the Water of Girvan valley below to the east.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 39° No of Blade Tips Theoretically Visible: 9 No of Turbine Hubs Theoretically Visible: 9

The wireline shows that all nine of the Proposed Development turbines would be theoretically visible from the property at a range of 1.53 km to the closest proposed turbine. The turbines would be visible to a varying degree with all hubs visible, six turbines with top half of towers visible to varying degree and the other three with most of the tower visible.

Whilst it is appreciated that there are filtered views through the trees from the property, the surrounding trees do provide a sense of enclosure from the view to the south which has a moderating influence on the magnitude of change. When visible, the turbines would appear beyond the upland ridgeline horizon to the south and as such none of the turbine bases would be visible. A section of track would be visible on the intervening moorland slopes but as a distant element which is higher in elevation and likely not readily visible due to line of sight. The Proposed Development would appear set back from upper edges of the Water of Girvan valley to the south-east and would not encroach upon the view along the valley floor to the east. The magnitude of change is predicted to be High which when combined with the High sensitivity would result in a Major and Significant Effect.

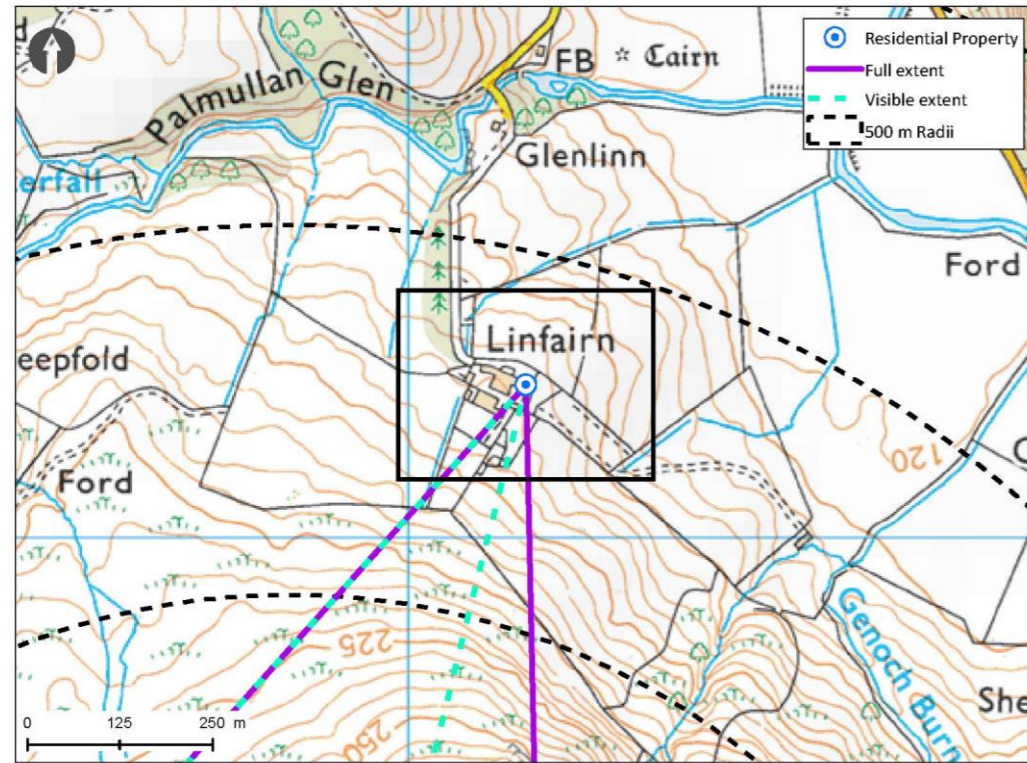
Step 4: Residential Visual Amenity Threshold

Step 4 involves making a judgement as to whether the predicted effects on visual amenity and views at a property assessed to have a high magnitude of change are such that it has reached the Residential Visual Amenity Threshold, as described in the introduction. This property is not considered to have reached the Residential Visual Amenity Threshold, for the following reasons:

- Whilst south facing views from the property would be affected by the Proposed Development at relatively close range, the horizontal field of view that will be affected by the turbines does not occupy a large amount of the upland horizon in the available view;
- Views towards the Water of Girvan Valley to the north east would be unaffected by the Proposed Development. The Proposed Development would appear set back from upper edges of the Water of Girvan valley to the south-east and would not encroach upon the view along the valley floor to the east;
- Whilst small sections of track would be visible on the intervening moorland in the mid distance, the turbines themselves are set further back, providing a sense of separation between the property and location of the Proposed Development turbines; and
- The distance of the Proposed Development from the property, combined with its limited horizontal field of view, ensures that it will not be overbearing or overwhelming.

10: Linfairn

Property No. 10: Linfairn



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 238158E 601208N

Distance to Nearest Turbine: 1.32 km

Elevation: 163 m AOD

Farmhouse	X	Stone-built	X	1 Storey		Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey	X	Garage(s)		Rear Garden	
Terraced		Timber-clad		Conservatory		Outbuildings	X	Side Gardens	

Step 2: Existing Residential (Visual) Amenity

Linfairn is located to the west of the Water of Girvan on the lower slopes of Wee Benyaw to the south of Palmullan Burn. The property is a two storey farmhouse set within a collection of large farm buildings and agricultural sheds. The property is accessed from the south from the minor access road that runs past Dalmorton to the Palmullan Glen.

The property is orientated on a south-west to north-east axis with its principal aspect from the front of the house to the north-east across the valley of the Water of Girvan. There is a large driveway and parking area to the front of the house which separates the house from a grassed and open aspect garden area that runs along the northern edges of the property. There are also several small field enclosures to the east and south connecting to the larger field in the wider setting of the farm.

Views to the west and south are restricted by the large farm buildings and sheds that surround the property. Views to the north and north east are open and elevated offering a scenic vantage point in which to appreciate the view across and along the Water of Girvan valley.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 28°

No of Blade Tips Theoretically Visible: 4

No of Turbine Hubs Theoretically Visible: 0

The wireline shows that four of the Proposed Development turbines would be visible from the property at a range of 1.32 km to the closest proposed turbine. Two with full blade visibility and two with only blade tips. All four turbines would be visible beyond the upland ridgeline horizon to the south-west. The Proposed Development turbines would be visible from the south west elevation of the property. Views of the Proposed Development would be restricted from ground floors due to the large farm sheds that intervene. The principal view to the north-east from the front of the property would be unaffected.

The Proposed Development turbine blades would appear behind the northern slopes of Wee Benyaw in this view within a clearly upland context that is set back from the edges of the steep sloping valley sides.

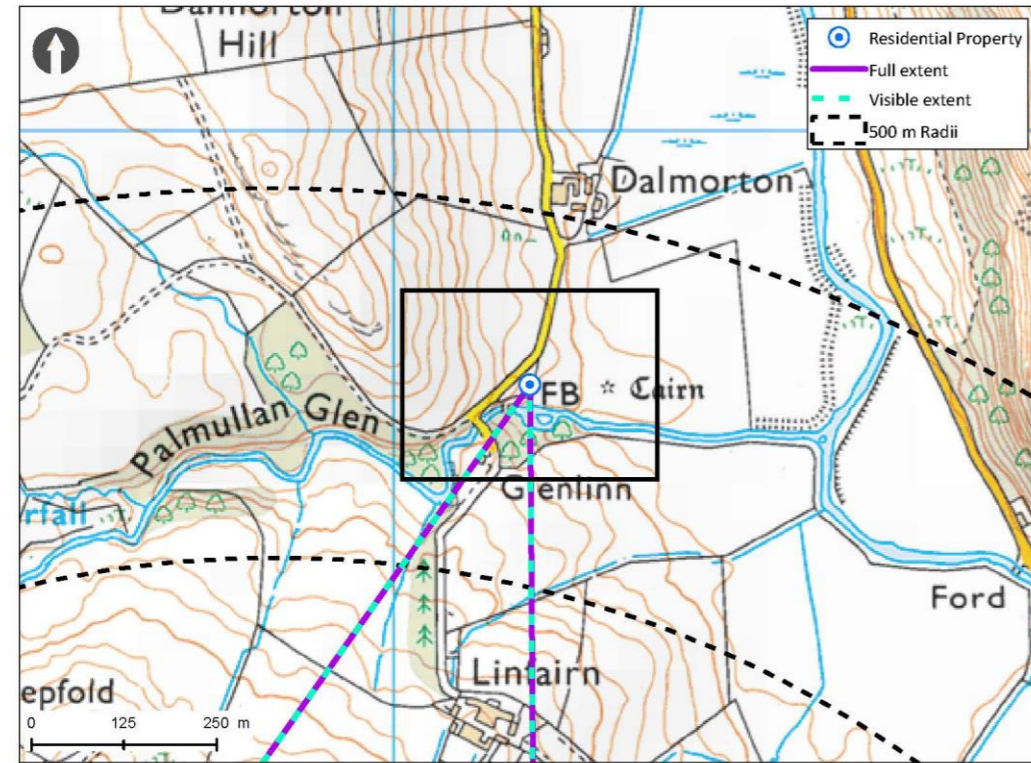
The magnitude of change is predicted to be Low which when combined with the High sensitivity would result in a Moderate-Minor and Not Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

11: Palmullan Cottage

Property No. 11: Pullmullan Cottage



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 238183E 601658N Distance to Nearest Turbine: 1.77 km Elevation: 133 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

Palmullan Cottage is located to the south of Dalmorton within the Palmullan Glen. The property is accessed via the road to Linfairn and set within the woodland and riparian trees of the Palmullan Burn. The property is orientated on a west to east axis with the principal views from to the east along the Water of Girvan valley from the front of the house. The property has a short driveway and parking area at the front of the house and gardens to the side and rear. Views to the west are contained by the surrounding woodland and road embankment. Views to the south are restricted by surrounding riparian trees, however, the nearby riparian woods are lower than the property and the ridge of Wee Benyaw can be made out between the taller trees.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 30° No of Blade Tips Theoretically Visible: 9 No of Turbine Hubs Theoretically Visible: 6

The wireline shows that all nine of the Proposed Development turbines would be theoretically visible from the property at a range of 1.77 km to the closest proposed turbine. Four with top of towers to varying degree, three with only small blade tips and two with hubs sitting close to the horizon. All of the turbines would be visible beyond the upland ridgeline horizon to the south-west.

The Proposed Development turbines would be visible from this property as a filtered and partially obstructed view of turbines that would appear between the taller riparian trees to the south. The principal view to the east from the house and garden would be unaffected by the Proposed Development. Where visible, the Proposed Development turbines would appear behind the slopes of Wee Benyaw and Knockcronal within a clearly upland context that is set back from the edges of the steep sloping valley sides.

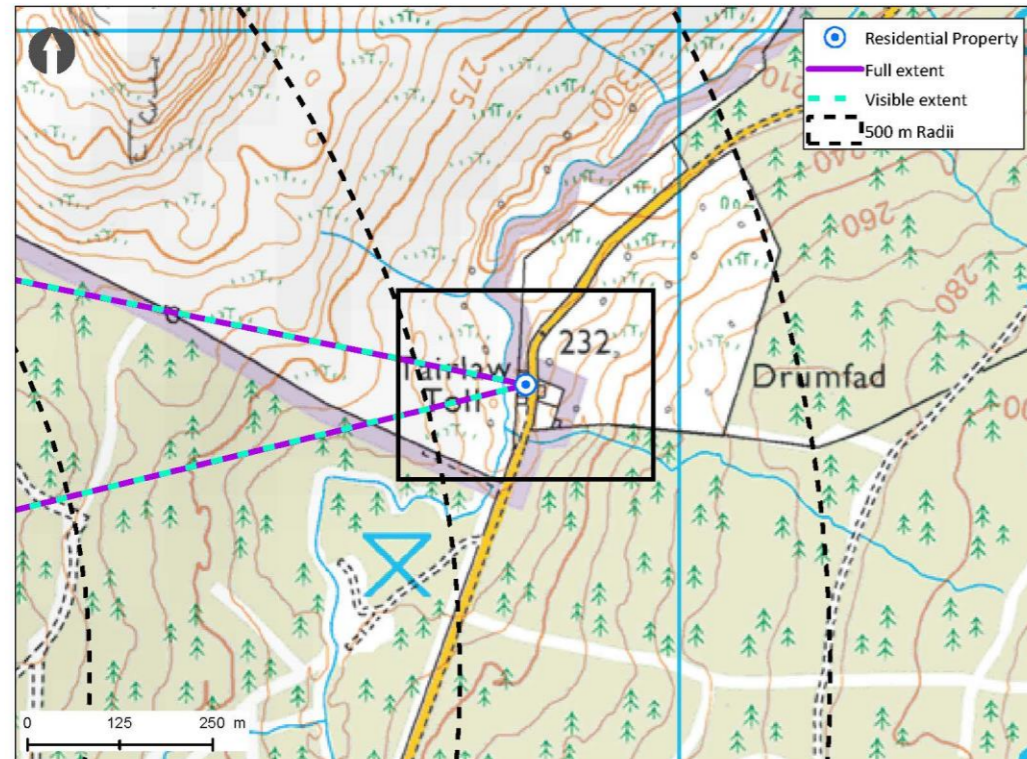
The magnitude of change is predicted to be Medium which when combined with the High sensitivity would result in a Moderate-Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

12: Tairlaw Toll Cottage

Property No. 12: Tairlaw Toll Cottage



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 239791E 599523N

Distance to Nearest Turbine: 1.64 km

Elevation: 233 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	
Semi-detached		Render		2 Storey		Garage(s)	X	Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	

Step 2: Existing Residential (Visual) Amenity

This property is located to the south of Tairlaw Bridge on the minor road that connects to Glentrool through the Carrick Forest. It is located just north of the Tairlaw plantation next to Tairlaw Toll House. The property is located immediately against the minor road and the front of the house has no garden area as a result. Parking and two garages are located to the south of the property. The property is orientated east to west with the principal view from the rear of the property to the west and towards the site. There are trees to the north and south of the property both in the garden but also along the road itself. Views to the west however are open across the moorland of Genoch Inner Hill.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 25° No of Blade Tips Theoretically Visible: 8 No of Turbine Hubs Theoretically Visible: 5

The wireline shows that eight of the Proposed Development turbines would be theoretically visible from the property at a range of 1.64 km to the closest proposed turbine. Three with top of towers to varying degree, two with hubs sitting close to the horizon, one with full blade but no hub and two with small blade tips. The Proposed Development turbines would be visible from this property above the ridgeline of Genoch Inner Hill within a clearly upland context that is set back from the edges of the sloping valley sides. The Proposed Development would only occupy a small horizontal extent of the view but would sit within the principal view of this property increasing the magnitude of change.

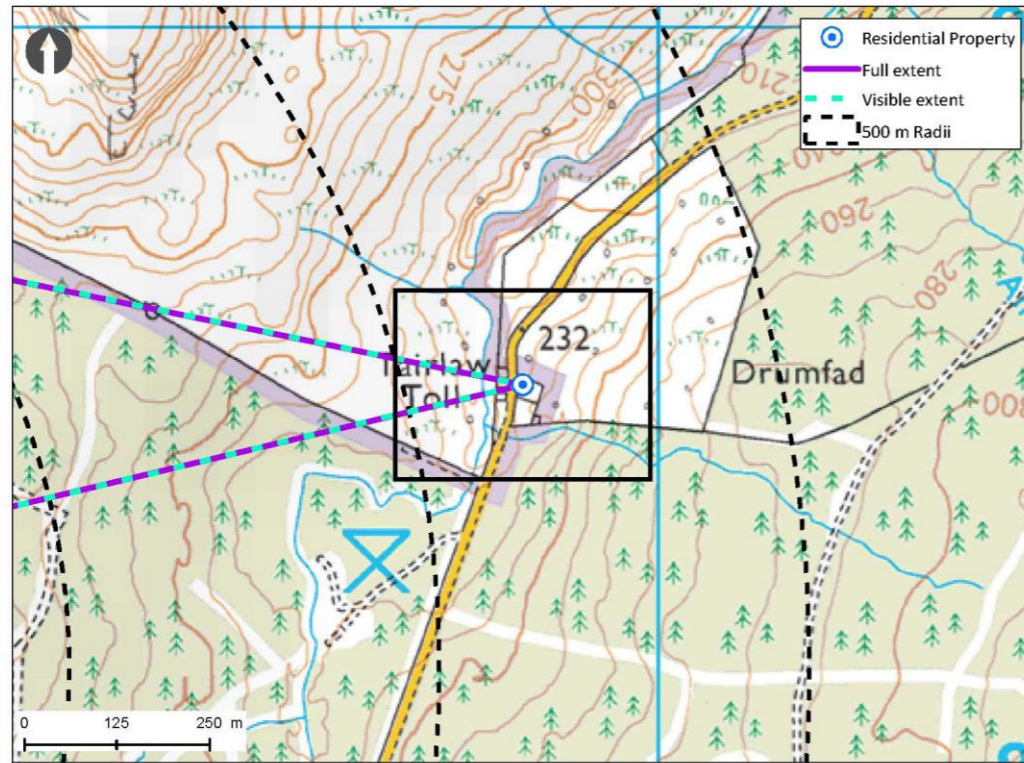
The magnitude of change is predicted to be Medium-High which when combined with the High sensitivity would result in a Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

13: Tairlaw Toll House

Property No. 13: Tairlaw Toll House



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 239815E 599518N Distance to Nearest Turbine: 1.66 km Elevation: 235 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

This property is located to the south of Tairlaw Bridge on the minor road that connects to Glentroll through the Carrick Forest. It is located just north of the Tairlaw plantation next to Tairlaw Toll Cottage. The property is a single storey property with driveway / parking area to the front and side of the house and a garden to the rear. The property is orientated east to west with the principal view from the front of the property to the west across the minor road and towards Tairlaw Toll Cottage. The trees that line the minor road to the north and south of the Tairlaw Toll Cottage on the opposite side of the road restrict views towards the site, however, the property is slightly elevated to the road and views of the ridgeline of Inner Genoch Hill are available above the intervening roofline and through gaps in the trees.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 25° No of Blade Tips Theoretically Visible: 8 No of Turbine Hubs Theoretically Visible: 7

The wireline shows that eight of the Proposed Development turbines would be theoretically visible from the property at a range of 1.66 km to the closest proposed turbine. Two with the top half of towers visible, four with top of towers to varying degree, one with hub sitting close to the horizon and one with only a blade tip.

The Proposed Development turbines would be visible from this property above the ridgeline of Genoch Inner Hill within a clearly upland context that is set back from the edges of the sloping valley sides and the Proposed Development would only occupy a small horizontal extent of the view. The Proposed Development turbines would sit within the principal view of this property increasing the magnitude of change, however, the intervening trees and roofline of associated with Tairlaw Toll Cottage moderates the magnitude of change.

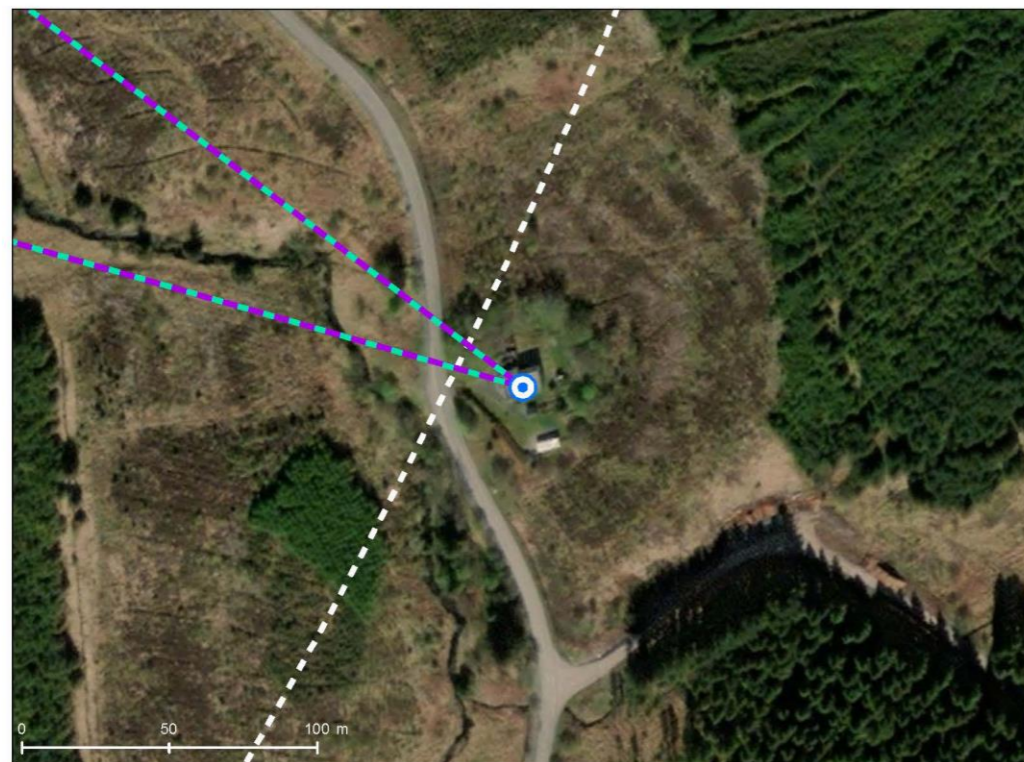
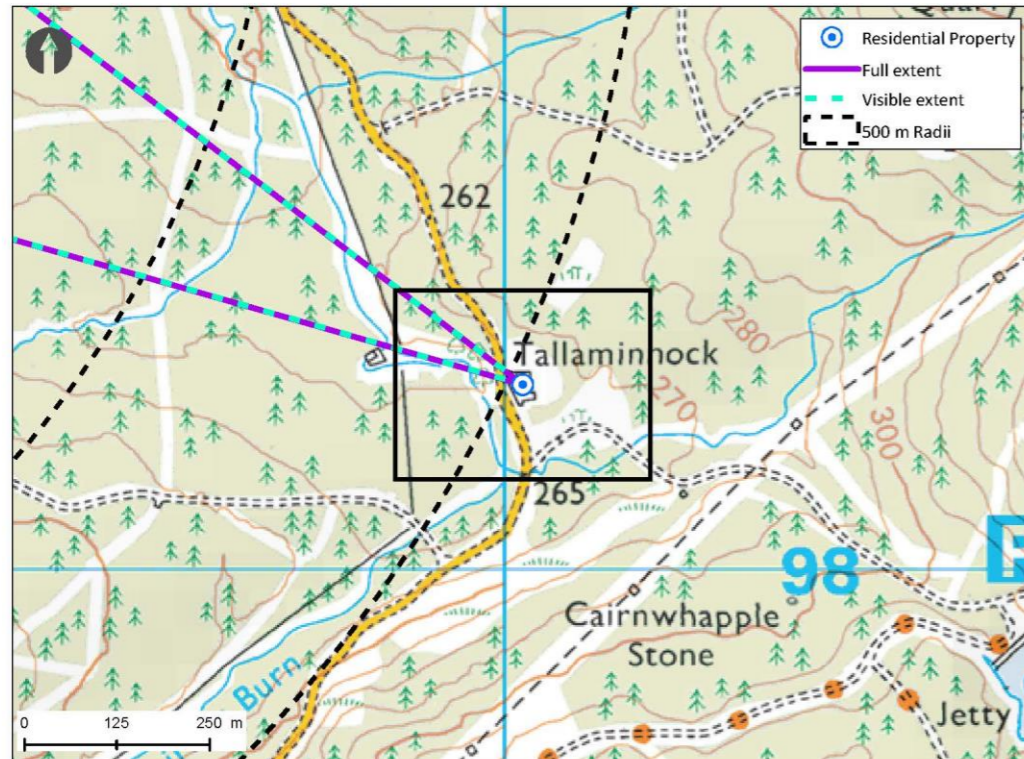
On balance, the magnitude of change is predicted to be Medium which when combined with the High sensitivity would result in a Moderate-Major and Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

14: Tallyminnoch

Property No. 14: Tallyminnoch



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 Data Source: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Property Description

OS Grid Ref: 240023E 598251N

Distance to Nearest Turbine: 2.02 km

Elevation: 268 m AOD

Farmhouse		Stone-built	X	1 Storey	X	Derelict		Farmyard	
Detached	X	Brick-built		1.5 Storey		Uninhabited		Front Garden	X
Semi-detached		Render	X	2 Storey		Garage(s)		Rear Garden	X
Terraced		Timber-clad		Conservatory		Outbuildings		Side Gardens	X

Step 2: Existing Residential (Visual) Amenity

This property is located within the Tairlaw Plantation to the west of Loch Braden on the minor road that connects to Glentrool through the Carrick Forest. It is a single storey property which is accessed off the minor road and has a driveway / parking area to the front and garden areas to the sides and rear. The property is entirely enclosed by surrounding tall hedges and mature trees and the driveway has a tall gate across the entrance and as a result outward facing views from the property are restricted.

The property is also located within a large area of plantation forest which further restricts views of the surrounding landscape. Views to the north west from the minor road outside the gate are more open along the Tairlaw Burn opposite the property but would only be more limited from within the property itself, even with the gate open.

Step 3: Residential (Visual) Amenity Effects

Affected Field of View: 21° No of Blade Tips Theoretically Visible: 9 No of Turbine Hubs Theoretically Visible: 9

The wireline shows that eight of the Proposed Development turbines would be theoretically visible from the property at a range of 2.02 km to the closest proposed turbine. The turbines would be visible above a distant treeline of plantation forestry at a range of heights above the horizon in a compact grouping. In reality the Proposed Development would not be visible from this property due to the surrounding boundary hedges and trees which obscure views in the direction of the site. Views through the gate and across the minor road are west facing whilst views towards the site are north-west and not available through the gate.

Taking this into account, the magnitude of change is predicted to be Negligible which when combined with the High sensitivity would result in a Minor and Not Significant Effect.

Step 4: Residential Visual Amenity Threshold

N/A

References

Landscape Institute with the Institute of Environmental Management and Assessment (2013).
Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3).

Landscape Institute (2019). Technical Guidance Note 2/19 Residential Visual Amenity Assessment.

Landscape Institute (2019). Visual representation of Development Proposals: Landscape Institute
Technical Guidance Note 06/19.