Glenburnie Wind Farm

AEI Technical Appendix 6.3

Residential Visual Amenity Assessment

Author	LDA Design
Date	21/05/2025
Ref	

AEI Technical Appendix 6.3: Residential Visual Amenity Assessment

1.1. Introduction and Purpose

This Residential Visual Amenity Assessment (RVAA) provides an updated assessment of the likely change to residential visual amenity as a result of the revised proposed development, which has been revised from the original EIA Report that was submitted in October 2023 (referred to hereafter to as the 'EIA Report October 2023').

Guidance on RVAA is set out within the Landscape Institute's Technical Guidance Note 02/19 (TGN 02/19) and grounded within the principles of The Landscape Institute and Institute of Environmental Management and Assessment's Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3). TGN 02/19 (para. 1.2) defines Residential Visual Amenity as:

"the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage.' Residential Visual Amenity forms one component of 'Residential Amenity' which comprises *'a range of visual, aural, olfactory and other sensory components"* (TGN 02/19, para. 1.4).

The RVAA is confined to judgements on Residential **Visual Amenity**, with the final judgement regarding effect on 'Residential Amenity' being a planning matter to be considered in the planning balance.

A RVAA is a tool used to *'form a judgement, to assist decision makers, on whether a revised proposed development is likely to change the visual amenity of a residential property to such an extent that it becomes a matter of 'Residential Amenity''* (TGN 02/19, para. 5.1). It is a separate assessment to a LVIA, as stated within GLVIA3 para. 6.17, focusing solely on private views and private visual amenity. It requires assessors to determine whether the effects of a revised proposed development reach the 'Residential Visual Amenity Threshold', described as the point at which a revised proposed development would be of *'such nature and/or magnitude that it potentially affects 'living conditions' or Residential Amenity'* (TGN 02/19, para. 2.1).

The language used to express the Residential Visual Amenity Threshold varies dependant on the type of proposals being assessed. However, it is typically described as the point at which the development becomes 'overbearing or overwhelming' (used for tall structures) or 'overly intrusive' (used for development overlooking a garden or principal room).

No individual has a right to a particular view, as confirmed in a number of planning appeal and public inquiry decisions, and *'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.'* This in itself 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'* (TGN 02/19, para. 1.6).

2.0 Methodology

The RVVA's methodology adopts the four-step approach recommended by TGN 02/19 (para. 4.1), which comprises:

1) *Definition of study area and scope of the assessment – informed by the description of the revised proposed development, defining the study area extent and scope of the assessment with respect to the properties to be included.*

2) *Evaluation of baseline visual amenity at properties to be included having regard to the landscape and visual context and the development proposed.*

3) *Assessment of likely change to visual amenity of included properties in accordance with GLVIA3 principles and processes.*

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.*

2.1. Step 1: Study Area and Scope of the Assessment

The type and nature of the revised proposed development should inform the study area for a RVAA. TGN 02/19 Para. 4.4 states that:

'there are no standard criteria for defining the RVAA study area nor for the scope of the RVAA, which should be determined on a case-by-case basis taking both the type and scale of revised proposed development, as well as the landscape and visual context, into account.'

It further notes that being able to see a revised proposed development from a property should not be a reason to include it within the RVAA.

TGN 02/19 recommends a preliminary study area of 1.5 – 2km for conspicuous structures, such as wind turbines, with a smaller 50 – 250m study area recommended for large but lower profile structures and developments such as road schemes and housing. However, it notes that in most cases the latter developments are unlikely to require an RVAA (para. 4.7).

Properties within the RVAA are assessed on an individual basis, unless the outlook and/or views in all aspects are the same for multiple properties, where they may be assessed as a group. Where this occurs, it is explicitly stated.

For the EIA Report October 2023 assessment, a study area of 2.5km was selected and agreed upon as appropriate by the local planning authority and key stakeholders. The study area responded to the height of the proposed wind turbines at a maximum tip height of 220m.

For this AEI and RVAA, a 2.5km study area has been retained and adjusted to match the revised proposed development (i.e. the reduced number of turbines). As a consequence of the revisions made to proposals, the majority of residential properties originally identified now lie either beyond the RVAA's study area and/or the Zone of Theoretical Visibility (ZTV) indicates that visibility from the residential properties still in the study area would be unlikely to occur. This is illustrated in **AEI Technical Appendix 6.3, Figure 2**.

2.2. Step 2: Evaluation of Baseline Amenity

This section of the RVAA evaluates the baseline visual conditions at the properties included. It considers the *'type, nature, extent, and quality of views that may be experienced 'in*

the round'' (TGN 02/19, para. 4.10) from the dwelling itself and the domestic curtilage which includes domestic gardens and access drives.

The evaluation of baseline visual amenity is informed by desk study and fieldwork. At this stage, consideration of the properties from publicly accessible locations is usually appropriate to identify the baseline visual environment.

Where properties have a financial involvement in the project this is recorded. All properties are treated equally as part of the RVAA.

2.3. Step 3: Assessment of Likely Change to Visual Amenity

This step of the RVAA involves assessing the magnitude and significance of likely visual effects from each included property.

In accordance with GLVIA3 (para. 6.33), residents at home are considered to be the visual receptors 'most susceptible' to change. They are, therefore, considered to be of High Sensitivity.

Considerations for describing and evaluating the predicted magnitude of change and related visual effect are described in paragraph 4.14 of TGN 02/19, as follows:

- *Distance of property from the revised 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.*

This step involves desk study and fieldwork that is primarily undertaken from the nearest publicly available vantage or access point. Where this is not possible, visits to certain properties may be carried out.

This third step concludes by identifying the properties that should be taken forward for more detailed examination in order to reach a judgement regarding the Residential Visual Amenity Threshold. These are the properties that are assessed to be likely to experience the largest magnitude of effect.

2.4. Step 4: Further Assessment including RVAA Threshold

The final stage of stage of the RVAA involves the detailed examination of properties requiring further assessment as identified within step three. For each property:

- The change in visual amenity is described;
- A conclusion of magnitude and significance for visual effects is made; and
- A judgement on whether the predicted effects reach the Residential Visual Amenity Threshold is made.

Bespoke graphics may be provided to help support the narrative, including annotated aerial imagery and visualisations.

For these properties, detailed fieldwork will be carried out, should the occupier consent. This may involve detailed inspection of views and visual amenity form the inside of the property and the garden and general curtilage. Where access is not possible, assessment will be undertaken from the most appropriate publicly accessible location.

2.5. Approach to Cumulative Schemes

Existing cumulative developments, i.e. those which are already operational, are considered as part of the baseline for this assessment.

In general, future cumulative visual effects are assessed as part of the LVIA assessment and not within the RVAA. However, TGN 02/19 states in paragraph 4.25 that "...*in certain circumstances, it may be appropriate to consider a particular cumulative proposal which is effectively already part of the existing landscape baseline*".

The EIA Report October 2023 originally identified that Ditcher Law Wind Farm would be located approximately 1.2 – 1.4km from two residential properties (P2 and P3). The EIA Report October 2023 noted that should Ditcher Law Wind Farm and the original proposed development be consented to, these two residential properties would be located close to both wind farms: one to the east and one to the west. As such, cumulative effects with Ditcher Law Wind Farm were considered in the EIA Report October 2023 on properties P2 and P3, where relevant.

However, in light of the revised proposed development, P2 is located outside of the RVAA study area, and P3 would not experience any visibility of the revised proposed development (see **AEI Technical Appendix 6.3, Figure 2**.) Therefore, P2 and P3 are not assessed cumulatively in this updated assessment.

Addinston Hill, Several Rig and Hog Hill lie between Ditcher Law Wind Farm and the remaining residential properties in the RVAA's study area, and would create sufficient separation, such that cumulative effects are unlikely to occur. Cumulative effects on these properties (P1, P4-P17) are not considered within this RVAA.

Cumulative effects with Dunside Wind Farm (Application) are not considered as it would be located on the opposite side of the revised proposed development to the residential properties, to the east of Fallago Rig (operational). Due to the distance and visual separation, Dunside Wind Farm would not give rise to cumulative residential visual amenity effects.

No further cumulative developments have been identified as requiring additional consideration as part of this RVAA.

2.6. Distance and Direction

Where distances are given in the assessment, these are approximate distances rounded to the nearest 10m, given between the nearest part of the residential property and the nearest turbine unless explicitly stated otherwise.

3.0 Assessment

3.1. Introduction

The EIA Report October 2023 identified a total of 17 residential properties within the 2.5km study area. However, in light of revisions to the revised proposed development, the baseline assessment now identifies a total of two residential properties within the 2.5km study area. For consistency with the EIA Report October 2023, the property identifiers are retained for this assessment.

The two properties are listed in **Table TA 6-3.1** and mapped on **AEI Technical Appendix 6.3 Figure 1**, which is included within this report.

The assessment is supported by ZTV studies carried out as part of the AEI Chapter 6 (**AEI Figures 6.5 – 6.6**), and an additional ZTV is included as part of the RVAA as shown **Figure 2**. This is a reproduction of the information on **AEI Figure 6.6** with the residential context.

Analysis of the ZTV studies has shown that only property P1 would experience theoretical views of the revised proposed development and are therefore included within this assessment. Property P3 is shown to experience no theoretical visibility of the revised proposed development. This property is closely surrounded by mature vegetation and located at the base of large hills; both factors that screens the revised proposed development in views from it, and it is not considered further within this assessment.

Table TA6-3.1: Properties located within the study area.

Identifier	Property Name	Included?
P1	The Howe	Yes
P3	Dodcleugh	No

3.2. Initial Assessment

This initial assessment combines steps two and three of the RVAA methodology to determine the baseline visual conditions from each included property and to provide a judgement on the magnitude and significance of likely visual effects.

Properties with the highest magnitude of effect are identified as requiring further assessment to provide a judgement on whether the Residential Visual Amenity Threshold has been reached. This further, detailed assessment is provided on individual property sheets located after the initial assessment.

The assessment is supported by the ZTV studies (**Figure 2**), and photographs included within this report.

3.2.1. Construction Effects

Key potential impacts during the construction phase will most notably arise during the erection of the proposed wind turbines, where cranes and other equipment will be visible. Effects during construction will be temporary and Short term, and as a result will be of notably lower magnitude than those during the operational phase of the revised proposed development.

While Properties 7-10 (shown on Figures 1 and 2 from the EIA Report October 2023 for context) fall outside of the RVAA study area, it is acknowledged that they are located on the site access route and will experience site traffic and equipment being transported directly in front of the properties.

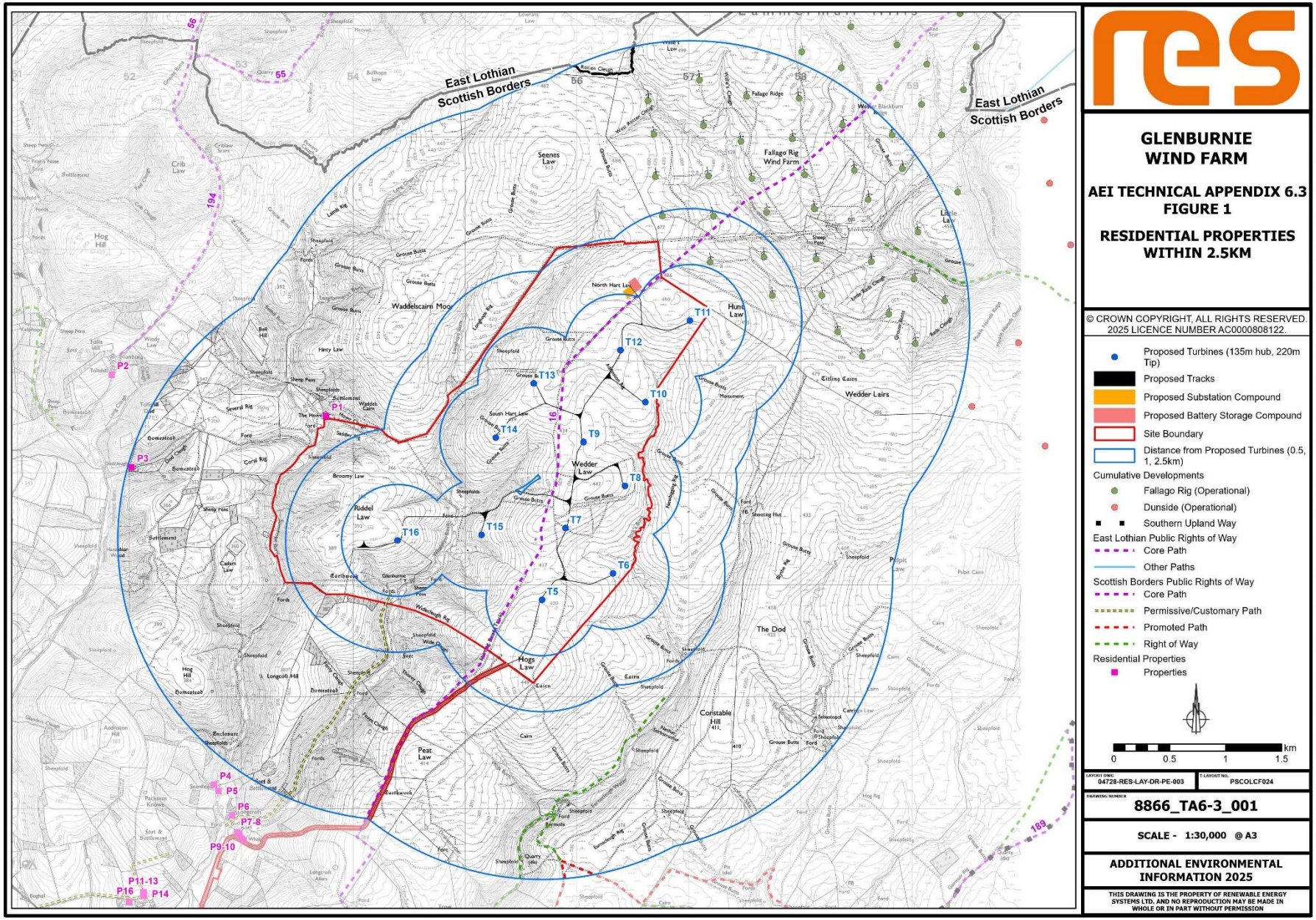
It is noted that construction effects comprise more than just visual matters (e.g. they also relate to noise and vibration), and these effects are covered in the appropriate chapters. These properties are owned by the revised proposed development's landowner; however the tenants are not financially involved.

Other components typical of construction activity, including the site access, borrow pits, laydown areas and construction compounds will be located away from other residential properties named within the study area. There will be no notable visibility of these elements, and they will have little to no impact on the residential visual amenity.

3.2.2. Night-Time Effects

Effects on residential visual amenity as a result of aviation lighting are most likely to be experienced from external areas of the properties, such as from garden areas being used in the evenings, where external lighting is switched off or not present. Most people close their curtains, have lights on and/or are asleep during the hours of darkness, and visibility from the inside of properties will be limited to rooms where lights are off and the windows are unobscured.

Drivers approaching the properties along access drives will mostly be focused on the area of road revealed by their headlights and aviation lighting will be noticed as a background element.


East Lothian
Scottish Borders
East Lothian
Scottish Borders
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
T13
T14
T15
T16
P1
P2
P3
P4
P5
P6
P7-8
P9-10
P11-13
P14
P16
Fallago Rig Wind Farm
Wedder Law
Hogs Law
Corstable Hill
The Dod
Peat Law
Riddel Law
Hunt Law
Wedder Lairs
Waddelscairn Moor
GLENBURNIE
WIND FARM
AEI TECHNICAL APPENDIX 6.3
FIGURE 1
RESIDENTIAL PROPERTIES
WITHIN 2.5KM
© CROWN COPYRIGHT, ALL RIGHTS RESERVED.
2025 LICENCE NUMBER AC0000808122.
Proposed Turbines (135m hub, 220m Tip)
Proposed Tracks
Proposed Substation Compound
Proposed Battery Storage Compound
Site Boundary
Distance from Proposed Turbines (0.5, 1, 2.5km)
Cumulative Developments
Fallago Rig (Operational)
Dunside (Operational)
Southern Upland Way
East Lothian Public Rights of Way
Core Path
Other Paths
Scottish Borders Public Rights of Way
Core Path
Permissive/Customary Path
Promoted Path
Right of Way
Residential Properties
Properties
0
0.5
1
1.5
km
LAYOUT DWG
04728-RES-LAY-DR-PE-003
T-LAYOUT NO.
PSCOLCF024
DRAWING NUMBER
8866_TA6-3_001
SCALE - 1:30,000 @ A3
ADDITIONAL ENVIRONMENTAL INFORMATION 2025
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

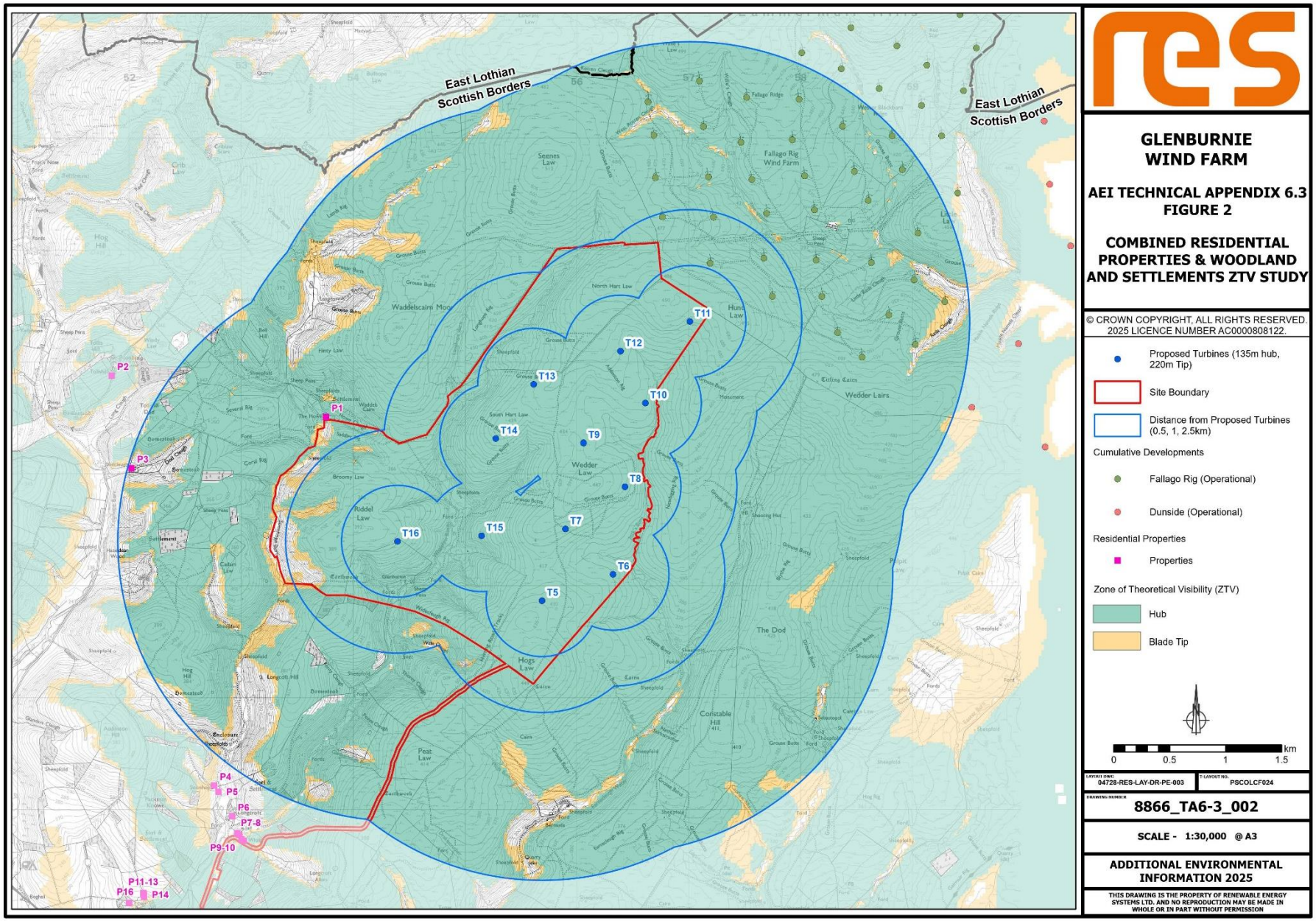

East Lothian
Scottish Borders
East Lothian
Scottish Borders
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
T13
T14
T15
T16
P1
P2
P3
P4
P5
P6
P7-8
P9-10
P11-13
P14
P16
Fallago Rig Wind Farm
Wedder Lairs
Wedder Law
Hogs Law
Constable Hill
The Dod
Peat Law
Riddel Law
Waddelscairn Moss
GLENBURNIE
WIND FARM
AEI TECHNICAL APPENDIX 6.3
FIGURE 2
COMBINED RESIDENTIAL PROPERTIES & WOODLAND AND SETTLEMENTS ZTV STUDY
© CROWN COPYRIGHT, ALL RIGHTS RESERVED. 2025 LICENCE NUMBER AC0000808122.
Proposed Turbines (135m hub, 220m Tip)
Site Boundary
Distance from Proposed Turbines (0.5, 1, 2.5km)
Cumulative Developments
Fallago Rig (Operational)
Dunside (Operational)
Residential Properties
Properties
Zone of Theoretical Visibility (ZTV)
Hub
Blade Tip
0
0.5
1
1.5
km
LAYOUT DWG: 04728-RES-LAY-DR-PE-003
T-LAYOUT NO.: PSCOLCF024
DRAWING NUMBER: 8866_TA6-3_002
SCALE - 1:30,000 @ A3
ADDITIONAL ENVIRONMENTAL INFORMATION 2025
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

Table TA6-3.2: Initial Assessment

Identifier	Property Name	Nearest Turbine	Description	Magnitude of Change	Significance of Effects	Requires Further Assessment?
P1	The Howe	T16: 1.26km, south	The Howe is a single storey property located within the U-shaped valley of Soonhope Burn. The steep sides of the valley rise around the property in all directions. The main aspect of the property looks south-south-west towards Several Rig and away from the revised proposed development. A fenced area of lawn is located to the south and west of the property. Existing electricity pylons are visible across the hilltops to the north of the property. Access is gained via a minor track to the west of the property. Visibility of the revised proposed development is unlikely to occur from the interior of the property due to the building's orientation and the steep hills around the building. From the exterior of the property, the revised proposed development will be clearly visible, with views primarily of T14 and T16 seen partially screened behind the hills. When approaching the property, there will be increased visibility of the revised proposed development and all the turbines will be partially visible, except for T8, T10, T11, T12 and T13. At night, lighting on two turbines will be visible when approaching the property (T5 and T16). From the garden, visibility of the lit turbines would reduce, such that only lighting on T16 is visible. Turbine lighting is not anticipated to occur from inside the property.	High	Major	Yes

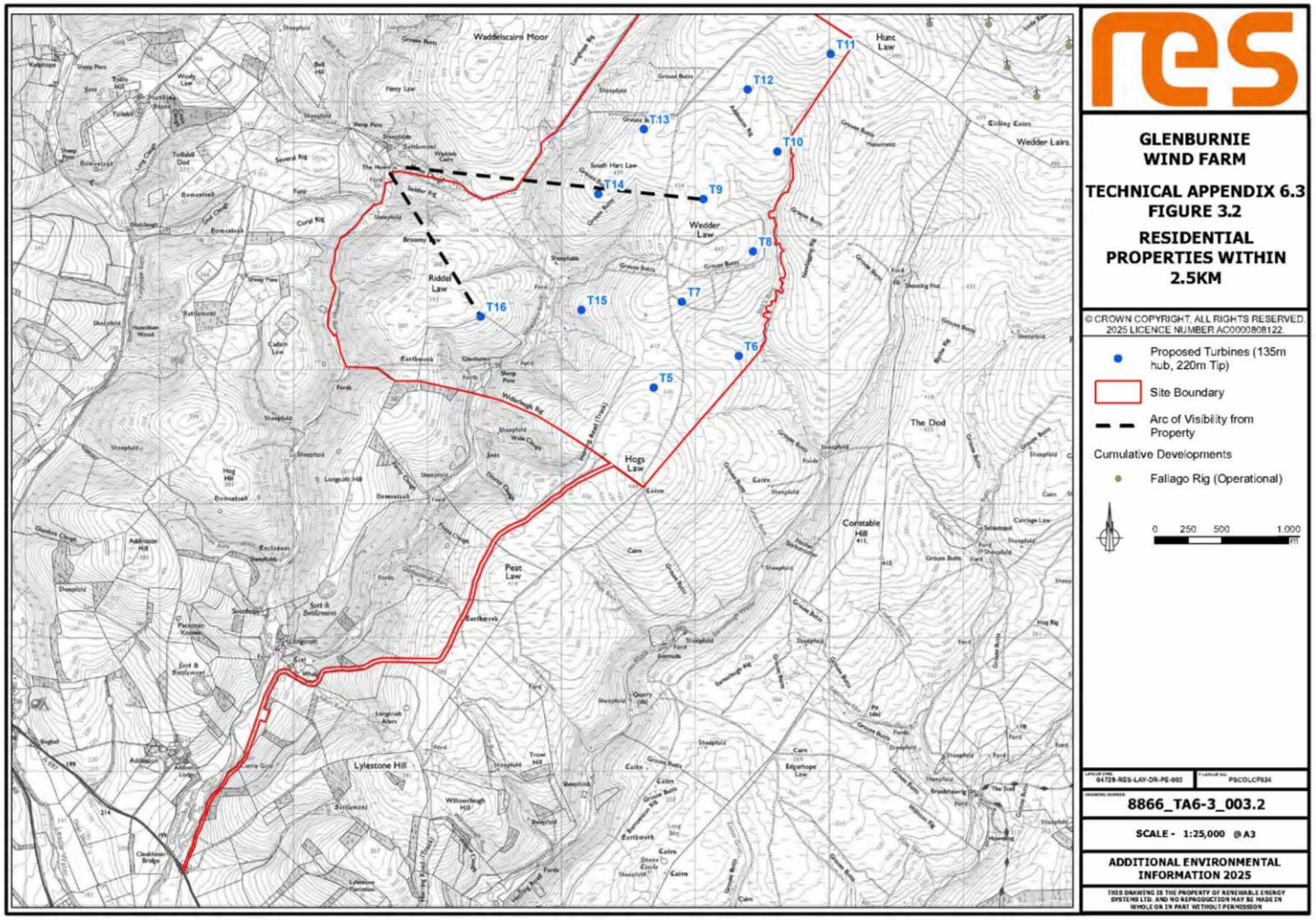
Identifier	Property Name	Nearest Turbine	Description	Magnitude of Change	Significance of Effects	Requires Further Assessment?
			Further detailed assessment is required for this property and is provided on an individual property assessment sheet.			

In summary, P1 will experience a Hi

gh magnitude of effect. A further detailed assessment is provided for P1 in the following pages.

P1 – The Howe


TT6: 1.26km
GLENBURNIE
WIND FARM
TECHNICAL APPENDIX 6.3
FIGURE 3.1
RESIDENTIAL
PROPERTIES WITHIN
2.5KM
© CROWN COPYRIGHT, ALL RIGHTS RESERVED.
2025 LICENCE NUMBER AC0000806122.
Site Boundary
Direction to Nearest
Visible Turbine
Arc of Visibility from
Property
0 25 50 100
m
04728-RES-LAY-DR-PE-003
PSCOLCF024
8866_TA6-3_003.1
SCALE - 1:2,500 @ A3
ADDITIONAL ENVIRONMENTAL
INFORMATION 2025
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY
SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN
WHOLE OR IN PART WITHOUT PERMISSION


Waddelscairn Moor
Hunc Law
Wedder Lairs
Wedder Law
Riddel Law
Hogs Law
The Dod
Constable Hill
Peat Law
Lylestone Hill
T5
T6
T7
T8
T9
T10
T11
T12
T13
T14
T15
T16
GLENBURNIE WIND FARM
TECHNICAL APPENDIX 6.3 FIGURE 3.2
RESIDENTIAL PROPERTIES WITHIN 2.5KM
© CROWN COPYRIGHT. ALL RIGHTS RESERVED. 2025 LICENCE NUMBER AC0000808122
Proposed Turbines (135m hub, 220m Tip)
Site Boundary
Arc of Visibility from Property
Cumulative Developments
Fallago Rig (Operational)
0 250 500 1,000 m
8866_TA6-3_003.2
SCALE - 1:25,000 @A3
ADDITIONAL ENVIRONMENTAL INFORMATION 2025
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

P1: The Howe	
Distance and direction to nearest turbine	1.26km, south (T16)
Approximate field of view	52°
Number of turbines visible	4
Financial involvement?	No financial involvement
Survey details	Property viewed from adjacent land

3.2.3. Description of Baseline Visual Amenity

The Howe is a single storey property located within the U-shaped valley of Soonhope Burn. The steep sides of the valley rise around the property in all directions. The main aspect of the property looks south-south-west towards Several Rig and away from the revised proposed development. A fenced area of lawn is located to the south and west of the property. Existing electricity pylons are visible across the hilltops to the north of the property. Access is gained via a minor track to the west of the property.

Image showing the primary aspect of The Howe

Image showing the side aspect of the property in a view similar to that from the approach road, from this view T14 and the blades of T7 will be visible above the hill behind the property

3.2.4. Likely Change to Visual Amenity

Visibility of the revised proposed development is unlikely to occur from the interior of the property due to the building's orientation and the steep hills around the building.

From the exterior of the property the revised proposed development will be clearly visible. Approximately half of T14 and the blades of T7 will be seen in views looking east. T16 will be seen partially screened behind the hills when looking to the south.

When approaching the property along the access track, there will be increased visibility of the revised proposed development and all the turbines will be partially visible, except for T8, T10, T11, T12 and T13. This view will vary dependant on how close the user is to the property.

At night, lighting on two turbines will be visible when approaching the property (T5 and T16). From the garden visibility of the lit turbines would reduce, such that only lighting on T16 is visible. Turbine lighting is not anticipated to be visible from inside the property.

The magnitude of change will be High.

3.2.5. RVA Threshold Judgement

The existing pylons form a dominant vertical feature within the landscape around The Howe and on the more distant approach to the property the turbines at Fallago Rig are also visible.

Views of the revised proposed development will not occur from the interior of the property and views from the immediate garden will be limited to a small number of turbines. From these areas the view will not appear imposing or overbearing and the turbines will be in keeping with the vertical scale of the existing electricity pylons. From the property, the arc

of visibility will be limited to approximately 52° and the wider view will remain open and uninterrupted. In views to the south, the turbines will appear from behind the hillside and will not appear imposing or overbearing.

Wider visibility of the revised proposed development will be possible on the approach to the property. However, the proposed turbines will not form a wholly new feature within the landscape, as existing turbines at Fallago Rig are already present within the wider views.

On balance, visual effects from this property will not be sufficient to exceed the Residential Visual Amenity threshold.

4.0 Summary

There are 2 residential properties within the RVAA study area, one of which is located within areas showing theoretical visibility and are assessed within the RVAA. There are no properties that are financially involved with the revised proposed development.

The most notable construction phase effects will arise during the erection of the proposed wind turbines, when cranes and other equipment will be visible. Effects during construction will be temporary and Short term and will be of notably lower magnitude than those during the operational phase of the revised proposed development.

While Properties 7 – 10 (shown on **Figures 1** and **2** from the EIA Report October 2023 for context) fall outside of the RVAA study area, it is acknowledged that they are located on the site access route and will experience site traffic and equipment being transported directly in front of the properties.

These properties are owned by the revised proposed development's landowner; however the tenants are not financially involved. It is noted within the assessment that construction effects on these properties will encompass effects outwith the scope of this RVAA (i.e. matters of noise and vibration) and effects on the Residential Amenity of these properties is a matter to be considered in the round by qualified planners, as stipulated within the Technical Guidance Note for Residential Visual Amenity (TGN 02/19).

Operational effects will vary notably between residential properties due to the number and range of properties within the study area. The property with the highest magnitude of change is P1. Property P3 was excluded from the assessment as it was shown not to experience any theoretical visibility of the revised proposed development. Field work showed that this property is closely surrounded by mature vegetation and located at the base of large hills; both factors that screen the revised proposed development in views from it. The detailed assessment of P1 reached the same conclusion, and it was deemed that effects on these properties would not meet the Residential Visual Amenity threshold.

Cumulative effects on properties within the study area were not considered for the AEI. Due to revisions made to the proposed development, previously identified properties mentioned in the EIA Report from October 2023 – which were expected to experience some cumulative effects—are now located outside the RVAA study area and/or will not have any visibility of the proposed development.

The RVAA concludes that the Residential Visual Amenity threshold will not be reached for any properties within the study area. Effects on all properties will not be sufficiently "oppressive" or "overbearing" that any property will be rendered an unattractive place in which to live.