

Appendix 5.4 Residential Visual Amenity Assessment (RVAA)



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# 5 RVAA

### **5.1 Overview**

- The purpose of this appendix is to provide an assessment of the potential effects of the proposed Carrick Windfarm (the Proposed Development) on the visual amenity of residential receptors located within close proximity to the Proposed Development. Assessment of impacts on Residential Visual Amenity from energy infrastructure proposals is set out as a requirement in Scottish Planning Policy (SPP) para 169.
- 2. The approach to this assessment is in accordance with the recent Landscape Institute's publication: Technical Guidance Note 2/19: Residential Visual Amenity Assessment (RVAA) (March 2019), hereafter referred to as TGN-2/19. In addition, the Landscape and Visual Impact Assessment (LVIA) methodology described in Chapter 5: Landscape and Visual Impact Assessment of the Environmental Impact Assessment (EIAR) and presented in detail in Appendix 5.1 LVIA Methodology, underpins the approach taken to the RVAA.
- 3. TGN-2/19 (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." It is a subset of residential amenity, which may include aspects such as noise, light, vibration, traffic and shadow flicker for example. This report only addresses the visual component of residential amenity.
- 4. The purpose of RVAA is "to provide an informed, well-reasoned answer to the question: 'is the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or Residential Amenity?" (TGN-02/19, para 2.1). The guidance refers to this as the "Residential Visual Amenity Threshold". Where this threshold is reached, in these circumstances predicted effects on visual amenity arising from a proposal would be considered 'unpleasantly overwhelming' or 'overbearing or dominant' which would render the affected property an 'unattractive' or 'unsatisfactory' place to live.

## 5.2 Methodology

- 5. The assessment and conclusions of this appendix are based on professional judgment, informed by the findings of desk study, field survey and the visual information (including wirelines, Ordnance Survey (OS) maps and aerial photography) provided in this appendix.
- The RVAA follows the four-step process as identified in TGN-02/19 and summarised below including the specific approach for this Proposed Development.

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

7. The Study Area is established by understanding the existing landscape and visual context and extent of visibility of the Proposed Development. Zone of Theoretical Visibility (ZTV) mapping of the Proposed Development to hub and blade tip height is a starting point in understanding the extent of visibility for local residents. It is also very important to consider the scale, topography, and built form of the existing landscape context in relation to the Proposed Development. As TGN-02/19 (para 4.5) states: "Simply being able to see a proposed development from a property is no reason to include it within the RVAA". Particularly in the context of windfarms, significant effects being identified for a settlement or group of properties within the LVIA does not automatically mean that the Residential Visual Amenity Threshold is reached for those properties. RVAA provides the next level of assessment to ascertain whether that threshold has been reached.

- 8. TGN-02/19 (para 4.7) advises for windfarm projects that a preliminary Study Area of 1.5-2 kilometres (km) from proposed wind turbines is appropriate to begin identifying which properties should be included in the RVAA. For the purposes of this RVAA, the Study Area has been set at a 2km offset from the proposed wind turbines position.
- 9. An initial desk-based review has been made of all the properties within this Study Area to determine those properties that have the most potential for significant effects, and thus require further assessment. This process has also identified those properties which through a variety of factors (screening from topography, vegetation, orientation of building for example) have less potential to reach the Residential Visual Amenity threshold and do not need to be further assessed. Properties have either been assessed individually or grouped where outlooks are similar.

### 5.2.2 Step 2: Evaluation of Baseline Visual Amenity

- 10. For each property identified through the initial appraisal as requiring further assessment, the baseline visual conditions have been evaluated through desk study and field work. Field survey does not necessarily require visiting properties unless there are no publicly available vantage points available. Where it is necessary to visit individual properties (such as remote houses off long private driveways), contact has been made in advance with the property owners to gain permission.
- 11. The baseline visual conditions include the type, nature, extent and quality of views from the property and its domestic curtilage such as gardens, and immediate driveway considering views on arrival or departure at the property. This does not include farmyards, paddocks or working areas not directly associated with the house.

### 5.2.3 Step 3: Assessment of Likely Change to Visual Amenity of Properties and Step 4: Forming the RVAA Judgement

- 12. Step 3 considers the magnitude and significance of effect at the identified properties. These effects are assessed in accordance with Guidelines for Landscape and Visual Impact Assessment: 3rd Edition (GLVIA3) methodology, considering the sensitivity (comprising value and susceptibility to the type of development) with the nature of effect –the scale of effect, geographical extent of change, duration and thus the subsequent significance of effect. Refer to **Appendix 5.1 LVIA Methodology** for full details of the assessment methodology.
- 13. Step 4 considers only those properties where the assessment as part of Step 3 identified a major significance of effect. This concluding assessment advises "the decision maker whether the predicted effects on visual amenity and views at the property are such that it has reached the Residential Visual Amenity Threshold, therefore potentially becoming a matter of Residential Amenity." (TGN 02/19 para 4.18).
- 14. The Step 3 and Step 4 assessment are undertaken through desk and field survey (at the same time as Step 2 Baseline survey). It is aided by aerial photographs annotated with the main outlooks of the property towards the Proposed Development, angle of available view, and wirelines illustrating the proposed view. Photography of the views is included where permission has been given by the residents and where it is considered valuable to the assessment to include.
- 15. The assessment records and considers the following aspects:
  - distance of the property from the nearest proposed wind turbine;
  - potential number and extent of the proposed wind turbines visible;
  - position of the wind turbines within the overall context of the views from the property, i.e. whether sited on the skyline, at similar or different elevation from the property, at the edge of the view or within a key focal point of the view;
  - orientation of the main façade in relation to the nearest proposed wind turbine;
  - whether views of the proposed wind turbines would be direct (within 45 degrees of a line perpendicular to the Proposed Development from the main façade); or indirect (more than 45 degrees of a line perpendicular to the Proposed Development from the main façade);
  - whether views of the proposed wind turbines would be open (with no intervening structure(s), landform or vegetation); or screened by any intervening structure(s), landform or vegetation;
  - prominence of the proposed wind turbines in the views from the property; and
  - proportion of the views from the property which would be occupied by the Proposed Development and whether the proposed wind turbines would be visible on more than one elevation of the property.

- 16. The assessment also considers the potential cumulative effects on residential visual amenity of the Proposed Development in combination with the application Craiginmoddie Windfarm and in-scoping Knockcronal Windfarm due to their proximity to one another and requirements in TGN-2/19 to consider cumulative visual effects of developments that are proposed simultaneously. Craiginmoddie Windfarm lies directly to the west of the Proposed Development and the in-scoping Knockcronal Windfarm lies directly to the north. Both windfarms would be potentially visible in addition to the Proposed Development from some properties within the Study Area.
- 17. Likely seasonal and future changes such as views through deciduous woodland and vegetation as well as forestry operations have been considered, where relevant.

## **5.3Assessment**

5.3.1 Scope and Study Area

- Figure 5.4.1 RVAA Study Area and Blade Tip ZTV illustrates the wind turbine locations and includes the ZTV to hub and blade tip height of the Proposed Development. A 1km and 2km radius buffer are shown from the wind turbine locations.
- 19. The Proposed Development's wind turbines lie within the Foothills with Forest and Windfarms Landscape Character Type. This comprises prominent steep-sided peripheral hills with well-defined summits and lower interior forested hills and shallow basins, particularly within the Site area around Linfern Loch. Surrounding the Site, the periphery hills include Barony, Hadyard, Genoch Inner Hill, and Craig of Dalwine. The proposed wind turbines have been located to avoid the higher slopes of these hills and are generally contained within the lower forested interior areas.
- 20. The ZTV (Figure 5.4.1 RVAA Study Area and Blade Tip ZTV) does not take into account the extensive forestry cover, and whilst at this close distance it would not screen the wind turbines fully, it would potentially screen some blade visibility and the bases of wind turbines, thus providing a degree of separation. It is however acknowledged that the forestry is commercial and on a felling cycle so that limited reliance on forestry as screening can be given.
- 21. As identified on Figure 5.4.1 RVAA Study Area and Blade Tip ZTV, there are five properties that lie west, north and east of the Site within the 2km Study Area. These are listed on Table 5.4.1.

Property	Distance from nearest proposed wind turbine
Doughty Farm	1.83km (wind turbine 4)
Glenalla	1.04km (wind turbine 2)
Tairlaw Toll Cottage	1.41km (wind turbine 10)
Tairlaw Toll House	1.42km (wind turbine 10)
Tallaminnoch	1.46km (wind turbine 10)

Table 5.4.1: Initial RVAA Property List

#### 5.3.2 Evaluation of Baseline Visual Amenity and Assessment of Likely Change

22. Following the Step 1 review, it was identified that all five residential properties were likely to have visibility of the Proposed Development, and therefore these five would be taken forward to Step 2. These all have potential to see parts of the Proposed Development and their baseline amenity (Step 2) is recorded along with the assessment of likely change (Step 3 and 4) in the following tables. Location plans which comprise an aerial photograph and annotated with angle of view and distance to the Proposed Development are provided for each property (with Tairlaw Toll Cottage and Tairlaw Toll House combined) in Figures 5.4.2-5.4.5. Cumulative wirelines and photopanoramas illustrating the potential view from each property are presented in Figures 5.4.6-5.4.10. The properties were visited in August 2020 following receipt of permission from the owners. Permission had not been received from Glenalla at the time of the Site visit and so a photograph was taken from the public road at the entrance to the driveway. Cumulative wirelines from the driveway and also at the property (without a photo-panorama) are

presented on Figures 5.4.7a-c Glenalla (driveway entrance) wirelines and Figures 5.4.7d-f Glenalla (at property) wirelines.

#### 5.3.2.1 Doughty Farm

 The aerial view of Doughty Farm is shown on Figure 5.4.2 Doughty Farm Location Plan, and photo-panorama and cumulative wirelines on Figures 5.4.6a-c Doughty Farm Wirelines and Photo-panorama. A description and assessment are provided in Table 5.4.2.

Doughty Farm	
Property Type	Single storey 'T' plan shaped, stone building, with inset small windows, and pitched grey slate roof.
Access:	The main access to and from the property is via the unnamed road (als NCN7) between Balloch to Cloyntie. The driveway from this un-named road i a long off-road track that crosses Ferly Burn. The property cannot be see from the un-named road due to changes in topography. The property i accessed via an area of hardstanding surrounding the north and east side of the house. The main entrance is at the north side of the house.
Orientation of main façades	North east/south west, and also north west
Outdoor Curtilage	There are some out buildings to north and west of the house. Derelict remain of a building lie to the south east with lots of items stored within the curtilage There are areas of hardstanding/gravel surround the house and out-buildings Some clumps of tree planting to the south east beyond the derelict buildin that provide some screening of views beyond. A garden area lies to the wes of the house with some tree planting. The southern boundary is less define with no formal boundaries.
Baseline Views	The property lies within a localised enclosed area of the foothills, with view largely contained to the north and east, with slightly more open views to th south and south west along a valley.
Distance to nearest proposed wind turbine	1.83km (wind turbine 4)
View direction towards Proposed Development	East to north east
Direct or Indirect Views towards Proposed Development	Direct from north east facing façade, indirect from south west and north west facades.
Predicted wireline view of Proposed Development	The upper tower, hubs and blades of wind turbine 4 and wind turbine 5 woul be visible above the foreground hill that encloses the property to the east. Th blade tips of wind turbines 1, 6 and 11 would also be potentially visible.
Open or Screened Views towards Proposed Development	Open
Predicted Magnitude of Change	The Proposed Development would lie to the east-north east of Doughty Farr and only two wind turbines would be most notably visible, with the blade tip of three others also likely to be discernible. Wind turbine 4 would be the most prominent and closest at 1.83km from the property. The foreground hillsid which the driveway wraps around screens views of the majority of the Proposed Development.
	The visible wind turbines would not be seen from the main outlooks of th house, with no windows from the house with a direct view towards th proposed wind turbines. The proposed wind turbines would be part of the view when leaving the property along the driveway which lies to the east and within views from some parts of the curtilage.

Doughty Farm	
	The property lies relatively contained within a localised dip in the landform, and the layers of undulating topography in addition to the foreground features, provide a degree of separation between the property and the proposed visible wind turbines. They would be prominent features but not within the main outlooks from the house and curtilage. The scale of effect is considered Low over a limited (low-negligible) extent of the views available. The magnitude of change would be Low-Negligible.
Level of Effect	Taking into account the residents have a High sensitivity to the change proposed and overall magnitude of change is Low-Negligible, the level of effect is considered <b>Moderate-Minor</b> and <b>Not Significant</b> , and it is considered that the effect would not reach the Residential Visual Amenity Threshold.
Predicted Cumulative View	No operational windfarms are visible from the main aspect of the house in the same direction as the Proposed Development. The application Craiginmoddie Windfarm would be visible to the north west and south west, 1.1km at closest point, with 11 wind turbines visible. It's northern turbines are obscured by the landform. Knockcronal Windfarm will lie approximately 4km at closest point, behind the Proposed Development's wind turbines in views from this property and would not be visible.
Predicted Cumulative Magnitude of Change	The containment of the property by the local landform limits the visibility of the Proposed Development and the northern turbines of Craiginmoddie Windfarm. However, the southern Craiginmoddie Windfarm's wind turbines would be seen in open views, and two of its turbines would be particularly prominent from the rear of the property, where they would be seen in views from the garden. The open outlook along the valley to the south would not feature any turbines. Due to the closer proximity of Craiginmoddie Windfarm and greater number of it's turbines visible from a main outlook and garden of the property, it would create a greater effect than the Proposed Development on its own. The scale of combined cumulative effect is considered High over a wide (high) extent of the views available – noting the direct view of Craiginmoddie Windfarm from a main outlook and garden. The magnitude of cumulative change would be High.
Level of Cumulative Effect	Taking into account the residents have a High sensitivity to the change proposed and overall magnitude of cumulative change is High, the level of cumulative effect is considered <b>Major</b> and <b>Significant</b> . Residents at the property would have potential visibility of large turbines in close proximity, particularly to the north west, but intervening landform and orientation of the property would limit the combined cumulative effect of the Proposed Development and Craiginmoddie Windfarm reaching the Residential Visual Amenity Threshold.

Table 5.4.2: Doughty Farm

### 5.3.2.2 Glenalla

25. The aerial view of Glenalla is shown on Figure 5.4.3 Glenalla Location Plan, and photo-panorama and cumulative wirelines on Figure 5.4.7a-c Glenalla (Driveway Entrance) Wirelines and Photo-panorama from the entrance to the driveway, and cumulative wirelines from the property on Figures 5.4.7d-f Glenalla (at property) Wirelines. A description and assessment are provided in Table 5.4.3.

Glenalla	
Property Type	Single storey farmhouse, rendered white, with inset small windows, and a pitched grey slate roof. There are two main buildings with additional stone-faced outbuildings to the east, creating a partially enclosed courtyard area.
Access:	From the unnamed minor road (also NCN7) a minor track lies eastwards where it forks, the right turn meets with an entrance gate to Glenalla Farm. The track then continues south towards the dwelling, through a gate where there is a central yard area for turning between the main buildings and outbuildings.
Orientation of main façade	North east and south west (both wide facades with windows)
Outdoor Curtilage	Outbuildings to the east of the main property, long drive way north of the farm, walkway to access the back garden to the north of the property. Some individual trees planted along driveway on eastern side and two trees to rear of property (south west). Boundaries not formally defined around the property.
Baseline views	Property lies contained within in a local valley, enclosed by Glenalla Fell to the north and Black Hill of Garleffin to the south. Fairly open aspect within immediate vicinity, with views to the north and south foreshortened by the hillsides. Longer views east towards Genoch Inner Hill, along the forested valley between undulating foothills.
Distance to nearest wind turbine	1.04km (wind turbine 2)
View direction towards Proposed Development	South to south east
Direct or Indirect Views towards Proposed Development	Indirect from main facades of property. Direct from curtilage.
Predicted wireline view of Proposed Development	All 13 proposed wind turbines would be potentially visible from the property and its curtilage to varying degrees. Wind turbine 2 would lie closest to the south, appearing from behind the immediate hillside. Wind turbine 3 would be visible in full to the south east and wind turbine 1 visible in full to the south south west (just out of view on the wireline in Figure 5.4.7b Glenalla (at property) Wireline. Only the blades of wind turbine 4 would be visible, near to wind turbine 1. The upper towers, hubs and blades of wind turbines 5 and 6 would appear above the hillside to the south. The other wind turbines would be visible in a cluster, to the south east, approximately 5km at furthest.
Open or Screened Views towards Proposed Development	Immediately open views from property, but within the slightly wider context the commercial forestry would screen parts of the proposed wind turbines.
Predicted Magnitude of Change	The Proposed Development would lie beyond the immediate foreground steep hillside with the upper parts of the towers, hubs and blades of the three closest wind turbines (wind turbines 1-3) clearly visible against the skyline. All other wind turbines appear set back and benefit from separation and screening from the steep foreground topography. The forestry also provides additional screening (when in place) and would leave views of mainly hubs, blades and tips. The elevation of the hillside beyond which the closest proposed wind turbines would be located is above the main line of sight in views from the south eastern aspect of the property.
	Importantly, the Proposed Development would not be directly visible in the views from the main property's facades. From the curtilage where direct views would be available, there would be a separation from the closest wind turbines provided by the elevated location above the direct line of sight, and beyond the immediate hillside. In addition, the forestry cover would provide separation. Views and prominence of the other proposed wind turbines to the south east would be moderated by the slightly further distance.

Glenalla		Glenalla		
	It is considered the scale of effect on views from within the property and its immediate curtilage would be High-Medium, with wind turbines occupying a wide (high) proportion of the available views. The magnitude of change is considered to be High-Medium.		Residents at the property would have potential visibility of large turbines i close proximity, particularly from the curtilage, but the hillside location of th property, its orientation, and separation provided by forestry, would limit th combined cumulative effect of the Proposed Development, Craiginmoddi Windfarm and Knockcronal Windfarm from reaching the Residential Visua	
Level of Effect	Taking into account residents have a High sensitivity to the change proposed and overall magnitude of change is High-Medium, the level of effect is considered <b>Major-Moderate</b> and <b>Significant</b> .	Table 5.4.3: Glenalla	Amenity Threshold.	
	The Proposed Development would not be visible in direct views from the house and in the direct views available from the curtilage, taking into account the separation from the closest proposed wind turbines provided by the immediate hillside and currently the commercial forestry, it is considered that the effect	27. The aerial view of Tai Location Plan, and pl	<ul> <li>5.3.2.3 Tairlaw Toll Cottage</li> <li>27. The aerial view of Tairlaw Toll Cottage is shown on Figure 5.4.4 Tairlaw Toll Cottage and Tairlaw Toll Ho Location Plan, and photo-panorama and cumulative wireline on Figure 5.4.8 Tairlaw Toll Cottage Wireline Photo-panorama. A description and assessment are provided in Table 5.4.3.</li> </ul>	
	would not reach the Residential Visual Amenity Threshold.	Tairlaw Toll Cottage	3	
	If the forestry on the hillside south of the property is felled, the proposed wind turbines would be more visible, but the separation provided by the landform of the hillside and elevated position of the closest wind turbines would again limit	Property Type	Single storey cottage, rendered white, with inset small windows, and a pitched grey slate roof.	
Predicted Cumulative Views	the effect from reaching the Residential Visual Amenity Threshold.	Access:	The approach to the property is immediately adjacent to the west side of a local road (C46W) between Straiton and Bargrennan. The main access to the front door is at the side of the house to the north. The main access to the rea is via the house or via the side gate and path along the northern side of the house to the small back yard area.	
		Orientation of main fa	açades West (garden) East (roadside)	
		Outdoor Curtilage	There are two out-buildings to the south of the property, a drive way immediately south of the cottage, a walkway to access the back garden via the north of the property. There are large trees to the north and south.	
		Baseline views	The property is located in close proximity to the road with the main outlook westwards over a private garden, Tairlaw Burn and the southern slopes o Genoch Inner Hill rough grassland. To the south west the tops of coniferous trees are visible within the Knockbuckle plantation area.	
		Distance to nearest v	vind turbine 1.41km (wind turbine 10)	
Predicted Cumulative Magnitud	de In combination with the Proposed Development, Craiginmoddie Windfarm and Knockcronal Windfarm would extend the potential visibility of turbines around	View direction toward Development	ds Proposed South west	
or onango	the property to approximately 120 degrees. Due to landform the turbines would be at varying elevations and the turbines most visible from the main outlooks of the property would be the more distant ones, clearly associated within the forestry compartments. The closest turbines would be from the Proposed Development which would not be visible from the main outlooks of the property. It is acknowledged from the wider curtilage and driveway of the property, the wind turbines of all three developments would be more prominent. The scale of combined cumulative effect is considered High over a wide (high) extent of the views available. The magnitude of cumulative change would be High.	Direct or Indirect Vie Proposed Developme		
		Predicted wireline Proposed Developme	view of Six wind turbines would be potentially visible, wind turbine 8, wind turbine 13. The other wind turbines would be screened by the landform. Wind turbine 9 wind turbine 11, wind turbine 12 and wind turbine 13 would lie more distant to the closer wind turbine 10. Only the hub and blades of wind turbine 8 would be visible.	
		Open or Screened Vi Proposed Developme	ews towards Largely screened by foreground trees.	
		Predicted Magnitude	Tairlaw burn and edge of property would screen views of wind turbine 13 and	
Level of Cumulative Effect	Taking into account the residents have a High sensitivity to the change proposed and overall magnitude of cumulative change is High, the level of cumulative effect is considered <b>Major</b> and <b>Significant.</b>		wind turbine 12. Only wind turbine 10, wind turbine 11 and wind turbine 9 would be notably visible. Wind turbine 8 would be mostly screened by the commercial forestry.	

	The three visible wind turbines would lie beyond the immediate foreground of the burn and rough grassland, clearly associated with the forested area beyond. They would be prominent within a narrow section of the view from the rear of the property and western curtilage. Forestry felling would increase visibility of wind turbine 8 but would not notably change the view.
	The scale of effect is considered to be Medium-Low over a localised (low) extent of the views available. The magnitude of change is considered to be Medium-Low.
Level of Effect	Taking into account residents have a High sensitivity to the change proposed and magnitude of change is Medium-Low, the level of effect is considered <b>Moderate</b> and <b>Significant.</b>
	The three visible wind turbines would be at the edge of 45 degrees in direct views towards the west from the property, clearly set back within the commercial forestry area separated from the property by the rough grassland and Tairlaw burn. It is considered that the effect would not reach the Residential Visual Amenity Threshold.
Predicted Cumulative Views	Craiginmoddie Windfarm would not be visible from this property.
	Knockcronal lies approximately 1.6km from the property, with 8 turbines potentially visible to varying extents, overlapping the more distant Proposed Development's wind turbines. Knockcronal's wind turbines would lie within the main outlook from this property.
Predicted Cumulative Magnitude of Change	Knockcronal Windfarm would lie at a similar distance from the property as the Proposed Development, with wind turbines viewed directly and fully occupying the view from the western outlook of the property. The addition of the Proposed Development to Knockcronal Windfarm would increase the horizontal extent of wind turbines visible from the property, but not any further within the main outlook, and both windfarms would set back from the immediate view, beyond the foreground rough grassland, within the forested area.
	The scale of combined cumulative effect is considered High-Medium over a wide (high) extent of the views available, noting the direct view of Knockcronal from a main outlook of the property. The magnitude of cumulative change would be High-Medium.
Level of Cumulative Effect	Taking into account the residents have a High sensitivity to the change proposed and overall magnitude of cumulative change is High-Medium, the level of cumulative effect is considered <b>Major-Moderate</b> and <b>Significant</b> .
	Residents at the property would have potential visibility of large turbines in close proximity, particularly from the rear outlook of the property, but the separation provided by the foreground fields and its undulating landform, in addition to the forestry where the turbines would be located, would limit the combined cumulative effect of the Proposed Development and Knockcronal Windfarm from reaching the Residential Visual Amenity Threshold.

Table 5.4.3: Tairlaw Toll Cottage

### 5.3.2.4 Tairlaw Toll House

 The aerial view of Tairlaw Toll Cottage is shown on Figure 5.4.4 Tairlaw Toll Cottage and Tairlaw Toll House Location Plan, and photo-panorama and cumulative wireline on Figure 5.4.9 Tairlaw Toll Cottage Wireline and Photo-panorama. A description and assessment are provided in Table 5.4.4.

Property Type	Single storey house, rendered white, with inset small windows, and a pitche
	grey slate roof.
Access:	The approach from property is immediately adjacent to the east side of a loca road (C46W) between Straiton and Bargrennan. The main access to the fror door is stepped up on the western side. Access to the rear of the property is at the northern side of the house via a short driveway.
Orientation of main façade	West (roadside) East (garden)
Outdoor Curtilage	A large static caravan used as a workshop is located to the north of th property within the back-garden area and other out buildings to the south of the property. There are some steep inclines to the rear garden with sever- levelled areas. A skate ramp and seating area has been constructed to th east of the property and a seating area to the south which has open views to the west.
Baseline views	Foreground views incorporate those beyond the property curtilage, the loca road (C46W) and Tairlaw Toll cottage with its associated buildings and ta trees. Tairlaw Burn sits beyond the cottage to the west and associated tre planting is visible. Beyond this, are the southern slopes of Genoch Inner H with rough grassland. To the south west the tops of coniferous trees are visibl within the Knockbuckle plantation area. The coniferous planting of the norther part of Tairlaw Plantation is visible to the south of the view and blocks view beyond. Longer distance views to the north include some views of win turbines at Dersalloch Windfarm.
Distance to nearest wind turbine	1.42km (wind turbine 10)
View direction towards Proposed Development	West to south west
Direct or Indirect Views towards Proposed Development	Direct.
Predicted wireline view of Proposed Development	All 13 wind turbines would be potentially visible. Wind turbine 10 would be closest, with wind turbine 9, wind turbine 11 wind turbine 12, and wind turbin 13 visible in full either side. The hubs and blades of wind turbine 2, wind turbin 5, wind turbine 6, wind turbine 7 and wind turbine 8 would be visible, and ju: the blades of wind turbine 1, wind turbine 3 and wind turbine 4. The propose wind turbines would appear in generally balanced arrangement with win turbines 1-7 notable more distant.
Open or Screened Views towards Proposed Development	Largely screened views from property by Tairlaw Toll Cottage and surroundin trees. Open views, partially screened by foreground trees, would be availabl from elevated parts of the curtilage to the south of the property.
Predicted Magnitude of Change	The Proposed Development would lie beyond the immediate foreground which includes Tairlaw Toll Cottage and open rough grassland beyond. The cottage and surrounding trees would provide some screening of the Propose Development from the west facing, roadside, aspect of the property. From the open southern parts of the curtilage, foreground roadside trees would partial obscure the eastern wind turbines, and the commercial forestry would scree much of the western more distant proposed wind turbines.

	The visible wind turbines would be prominent in the available views, just within a 45 degree angle from the property and curtilage, and would appear clearly associated with the commercial forested area, set back behind the immediate forested hillslopes, and separate to the foreground rough grassland.
	It is considered the scale of effect on views from within the property and its curtilage would be Medium, with wind turbines occupying a medium proportion of the available views. The magnitude of change is considered to be Medium.
Level of Effect	Taking into account residents have a High sensitivity to the change proposed and magnitude of change is Medium, the level of effect is considered <b>Major-</b> <b>Moderate</b> and <b>Significant.</b>
	The Proposed Development would be separated from the property by the foreground trees, intervening landform and also commercial forestry so that whilst it would be a prominent feature of the views towards the west, it is considered that the effect would not reach the Residential Visual Amenity Threshold.
	If the commercial forestry in the view is felled, the proposed wind turbines would be more visible, but the separation provided by immediate foreground vegetation would limit the effect from reaching the Residential Visual Amenity Threshold.
Predicted Cumulative Views	Craiginmoddie Windfarm would not be visible from this property.
	Knockcronal lies at approximately 1.6km from the property, with eight turbines potentially visible. They would be visible within a relatively narrow horizontal extent of the view, overlapping with the more distant wind turbines of the Proposed Development. Knockcronal Windfarm's wind turbines would be viewed directly and fully occupy the view from the western outlook of the property, however, the foreground view which includes Tairlaw Toll Cottage and surrounding trees provides screening.
Predicted Cumulative Magnitude of Change	Knockcronal Windfarm would lie at a similar distance from the property as the Proposed Development, with wind turbines viewed directly and fully occupying the view from the western outlook of the property. The addition of the Proposed Development to Knockcronal Windfarm would increase the horizontal extent of wind turbines visible from the property, but not any further within the main outlook. Both windfarms would be partially screened by the foreground vegetation associated with the house and Tairlaw Toll Cottage. In addition, their position set back from the immediate view, beyond the foreground rough grassland, within the forested area moderates the magnitude of change.
	The scale of combined cumulative effect is considered Medium over a high- medium extent of the views available, noting the considerable amount of screening. The magnitude of cumulative change would be High-Medium.
Level of Cumulative Effect	Taking into account the residents have a High sensitivity to the change proposed and overall magnitude of cumulative change is High-Medium, the level of cumulative effect is considered <b>Major-Moderate</b> and <b>Significant</b> .
	Residents at the property would have potential visibility of large turbines in close proximity, particularly from the rear outlook of the property. However, the screening provided by the vegetation surrounding the property, and separation provided by the foreground fields and its undulating landform, in addition to the

forestry where the turbines would be located, would limit the combined
cumulative effect of the Proposed Development and Knockcronal Windfarm
from reaching the Residential Visual Amenity Threshold.

Table 5.4.4: Tairlaw Toll House

### 5.3.2.5 Tallaminnoch

31. The aerial view of Tallaminnoch is shown on Figure 5.4.5 Tallaminnoch Location Plan, and photo-panorama and cumulative wireline on Figure 5.4.10 Tallaminnoch Wireline and Photo-panorama. A description and assessment are provided in Table 5.4.5.

Tallaminnoch	
Property Type	A single storey rectangular cottage rendered white with inset small window and a pitched grey roof.
Access	From the unnamed minor road between Straiton and Bargrennan, the propert is accessed via a short driveway through a gate leading immediately onto a area of hardstanding in front of the dwelling.
Orientation of main façade	West-south west
Outdoor Curtilage	A garage is attached to north of the main building with some out buildings t the north. The Night-sky dome located to south of property is accessed via gravel path. The private garden with hardstanding lies to the west and grasse and planted areas lie in the north, east and south. Dense tree planting in a directions with a gap for access from the road to the west.
Baseline views	Views from the property towards the west mainly incorporate foreground garden planting including hedgerow and trees. Beyond the driveway off the road sits Tairlaw Burn, an area of rough grassland and a dense coniferou plantation beyond, which can be seen into the distance where the topograph rises.
Distance to nearest wind turbine	1.46km (wind turbine 10)
View direction towards Proposed Development	West
Direct or Indirect Views towards Proposed Development	Direct
Predicted wireline view of Proposed Development	13 proposed wind turbines would be potentially visible directly west of th property. Wind turbine 10, wind turbine 12 and wind turbine 13 closest. Win turbine 11 would lie behind wind turbine 12. Wind turbines 1-9 would lie withi a relatively narrow proportion of the view appearing in a cluster extending int the distance, with the furthest wind turbine approximately 6km from th property.
Open or Screened Views towards Proposed Development	Partially Screened by foreground trees, and current commercial forestry.
Predicted Magnitude of Change	The outlook from the house in the direction of the Proposed Developmer focuses on the private garden in the foreground, enclosed by broadleaf trees and scrub and small broadleaf trees along the western side of the road the follow the Tairlaw Burn. Commercial forestry lies beyond. The Propose Development would appear within and beyond the forestry, partially screene by the foreground trees, noting in Winter this would be more open. The currer commercial forestry would screen the majority of the distant wind turbines wit the upper towers, hubs and blades of wind turbine 10, wind turbine 12 an wind turbine 9 most noticeable above the forestry.

Tallaminnoch	
	The enclosure by the immediately surrounding garden and roadside/burn vegetation provide separation from the commercial forestry area and the Proposed Development. In Winter, the density of the foreground vegetation would still retain a screening function but potentially more visibility of wind turbine 13 and wind turbine 10 would be possible. There would be no visibility from the rear of the property and curtilage to the east. If the commercial forestry is felled the more distant wind turbines would be lower visible, so that the full extent of the Proposed Development would be likely visible. Taking into account the potential felling of forestry and winter views, the scale of effect is considered to be Medium, across a medium extent of the available
	views towards the Proposed Development. The magnitude of change would be Medium.
Level of Effect	Taking into account residents have a High sensitivity to the change proposed and magnitude of change is Medium, the level of effect is considered <b>Major-</b> <b>Moderate</b> and <b>Significant.</b>
	The separation provided by the surrounding foreground vegetation between the proposed wind turbines, and their position clearly within the commercial forestry area (forested or felled), limits the proposed wind turbines becoming an overbearing presence in the views from this property and curtilage, and it is considered that the effect would not reach the Residential Visual Amenity Threshold.
Predicted Cumulative Views	Only one turbine hub and blades and the blade tips of nine turbines of Craiginmoddie Windfarm would be theoretically visible behind the Proposed Development. The current foreground vegetation and forestry would screen all views of Craiginmoddie Windfarm.
	Knockcronal Windfarm would lie to the north west of this property, with nine wind turbines potentially visible, approximately 2km at closest point. The southernmost turbine would lie behind the closer wind turbines of the Proposed Development. However, the surrounding boundary vegetation of the property would obscure views to Knockcronal Windfarm. Views from the gateway would be more open but to the west and not directly towards Knockcronal Windfarm.
Predicted Cumulative Magnitude of Change	As Craiginmoddie Windfarm would not be visible and Knockcronal Windfarm would be mostly screened from view, the magnitude of change is considered only slightly higher than that assessed for the Proposed Development on its own, but within the same level of effect. The scale of combined cumulative effect is therefore onsidered Medium over a medium extent of the views available. The magnitude of cumulative change would be Medium.
Level of Cumulative Effect	Taking into account the residents have a High sensitivity to the change proposed and overall magnitude of cumulative change is Medium, the level of cumulative effect is considered <b>Major-Moderate</b> and <b>Significant</b> .
	The separation provided by the surrounding foreground vegetation between the proposed wind turbines, and their position clearly within the commercial forestry area (forested or felled), limits the proposed wind turbines becoming an overbearing presence in the views from this property and curtilage, and it is considered that the effect would not reach the Residential Visual Amenity Threshold.

## **5.4 Summary and Conclusion**

- 33. The RVAA has identified that there would be no significant effects from the Proposed Development on residents at the property of Doughty Farm due to orientation of the property and enclosure by landform.
- 34. Significant effects were assessed at Glenalla, Tairlaw Toll Cottage, Tairlaw Toll House and Tallaminnoch where the proposed visible wind turbines would be close and prominent in views from the property and/or curtilage. However, in all cases it is considered that the Residential Amenity Threshold would not be reached due to the separation provided by landform and vegetation, and orientation of the main outlooks from the properties. This takes into account potential forestry felling and winter views. Future forestry planting would also increase screening in some areas, particularly east of Glenalla and west of Tallaminnoch.
- 35. Combined cumulative effects on residential visual amenity have been assessed with the Proposed Development, Craiginmoddie Windfarm and Knockcronal Windfarm. This identified that the level of effect would increase from that assessed for the Proposed Development on its own at Doughty Farm, Glenalla, and Tairlaw Toll Cottage, but for all properties would not reach the Residential Amenity Threshold.

Table 5.4.5: Tallaminnoch

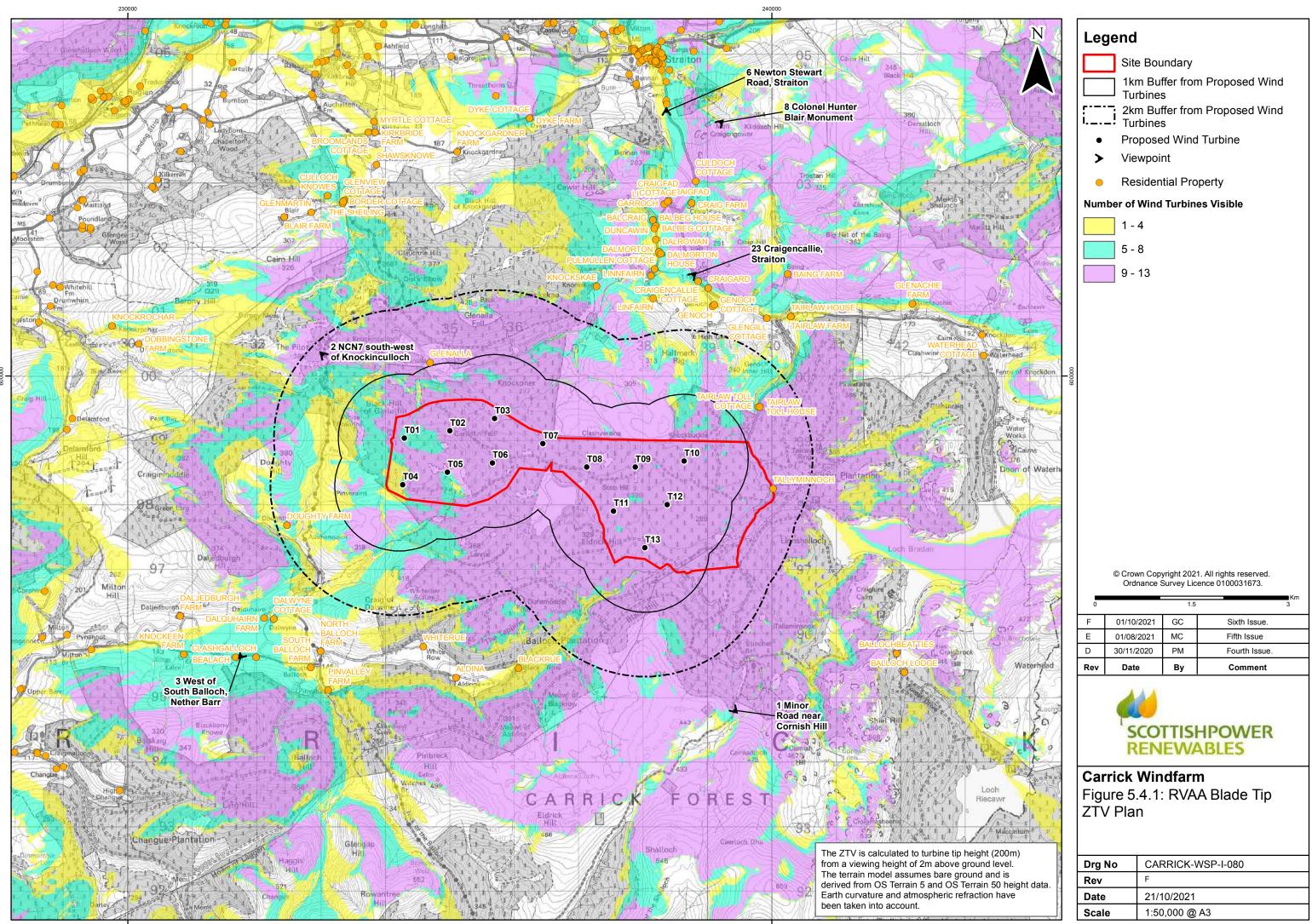
### Carrick Windfarm Project Team

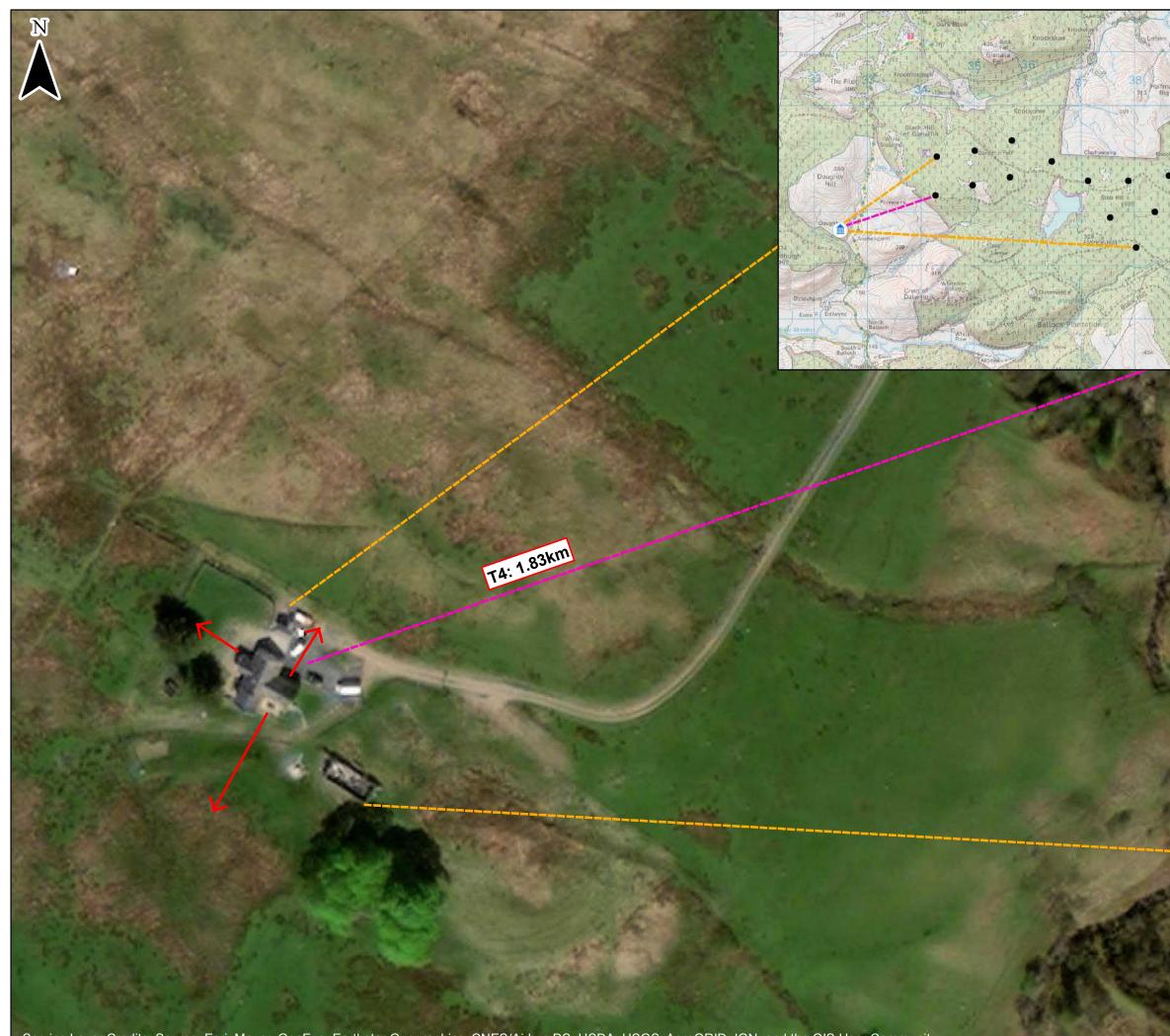
ScottishPower Renewables 9th Floor ScottishPower Headquarters 320 St Vincent Street Glasgow G2 5AD

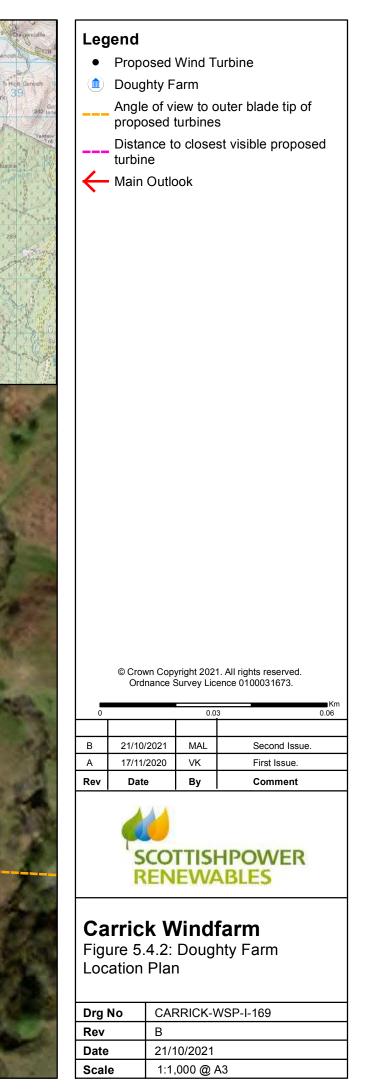


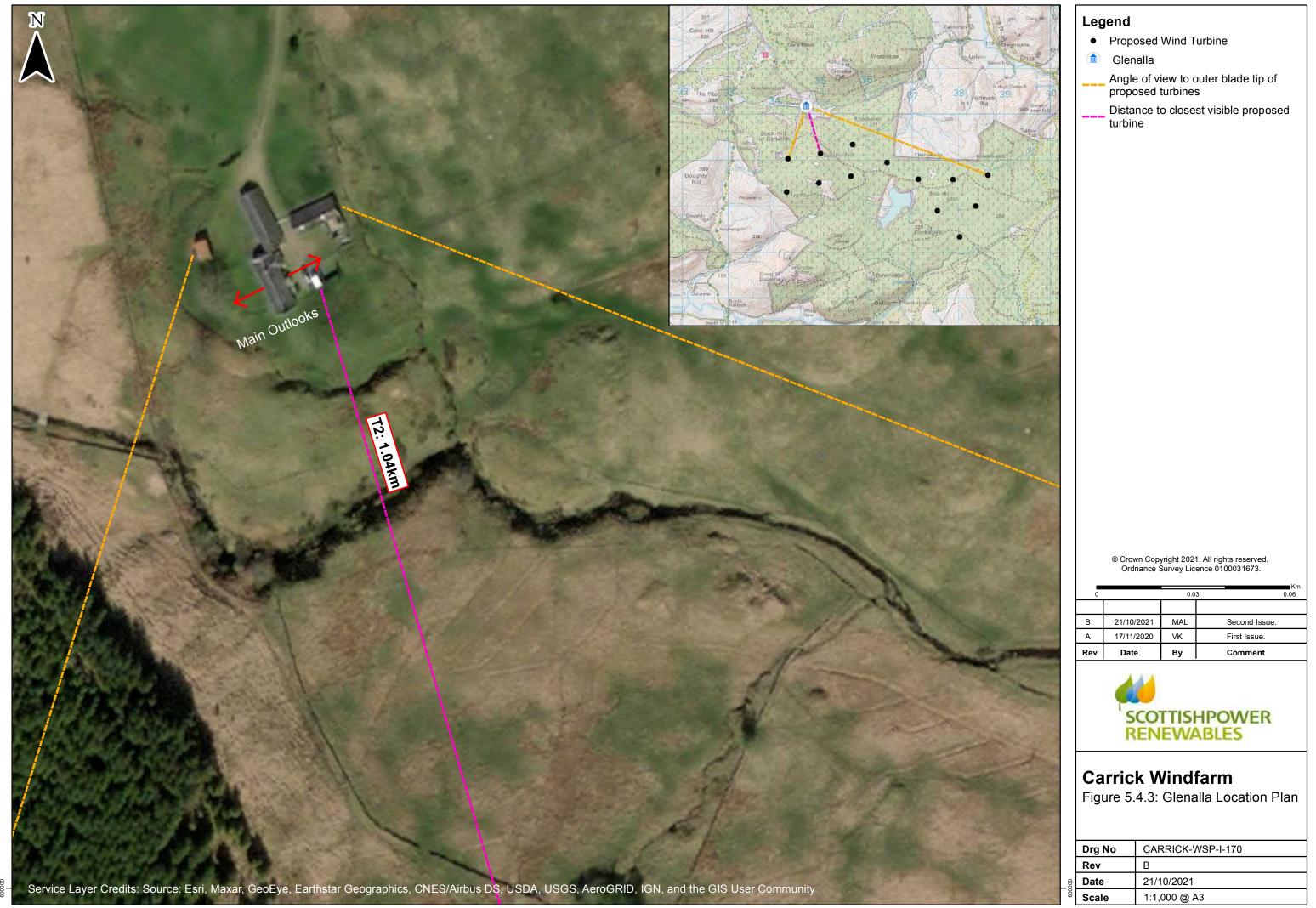
CarrickWindfarm@scottishpower.com

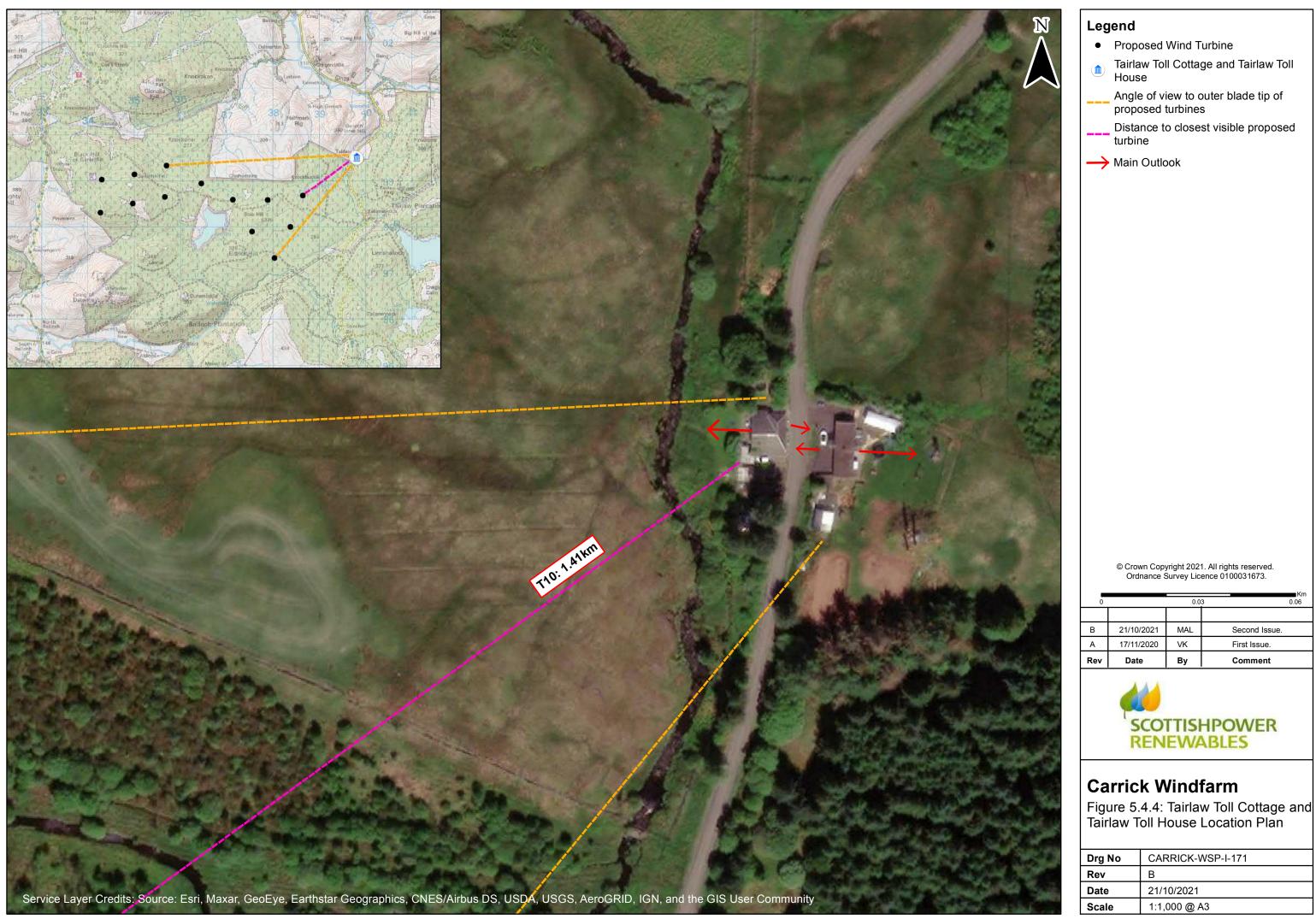












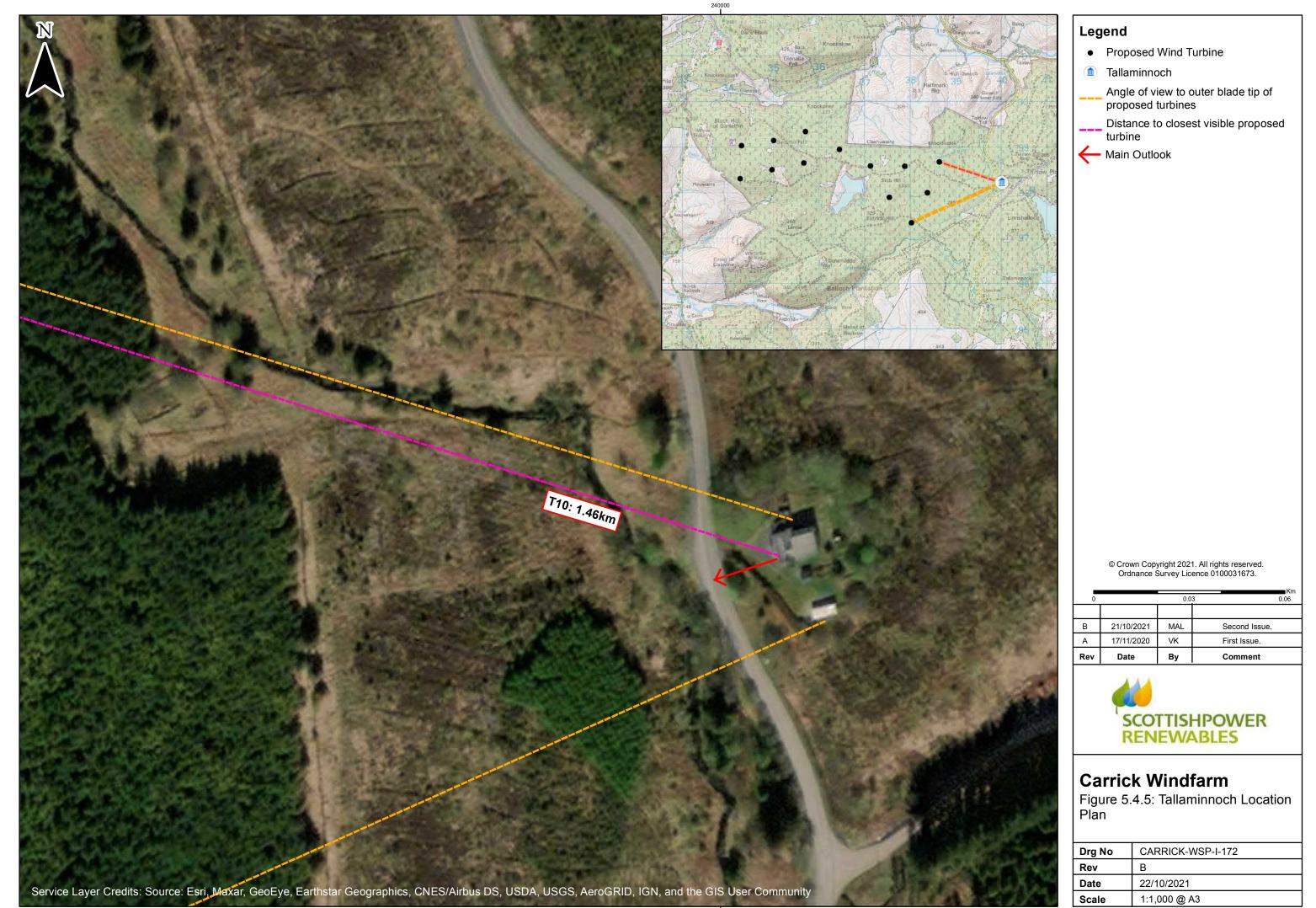
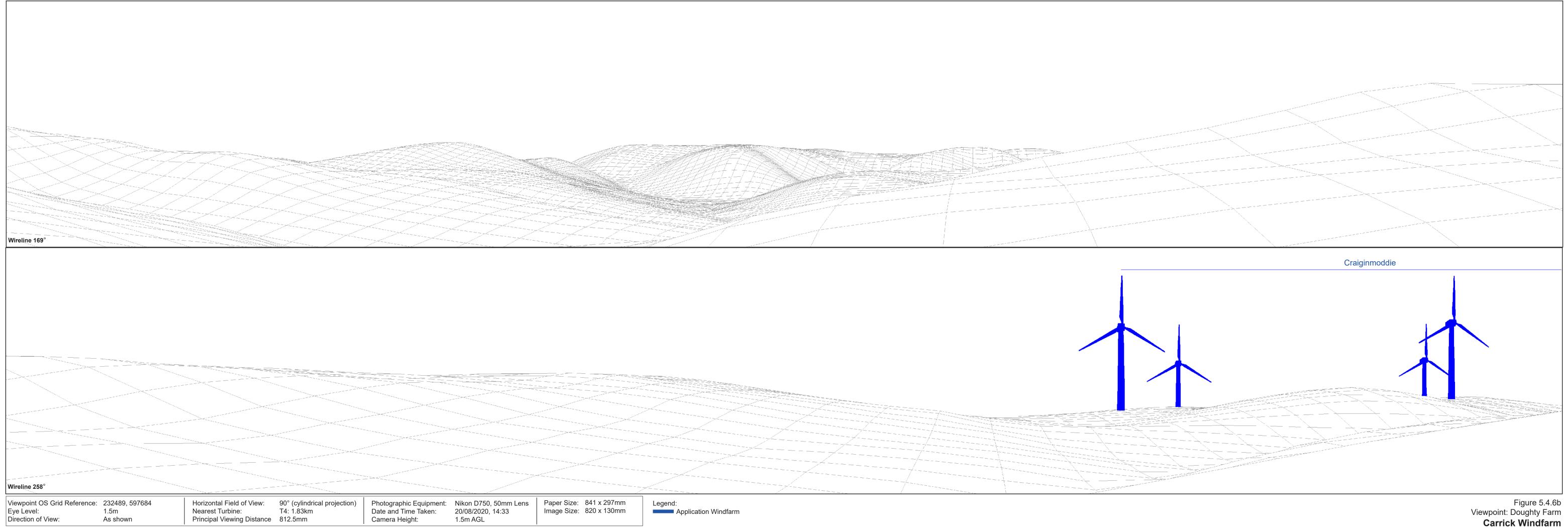
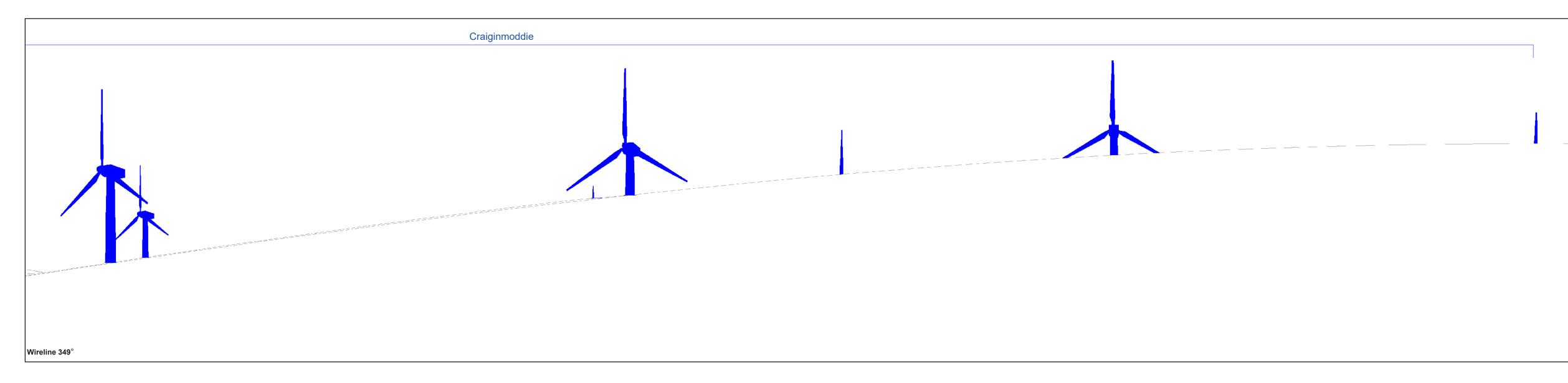




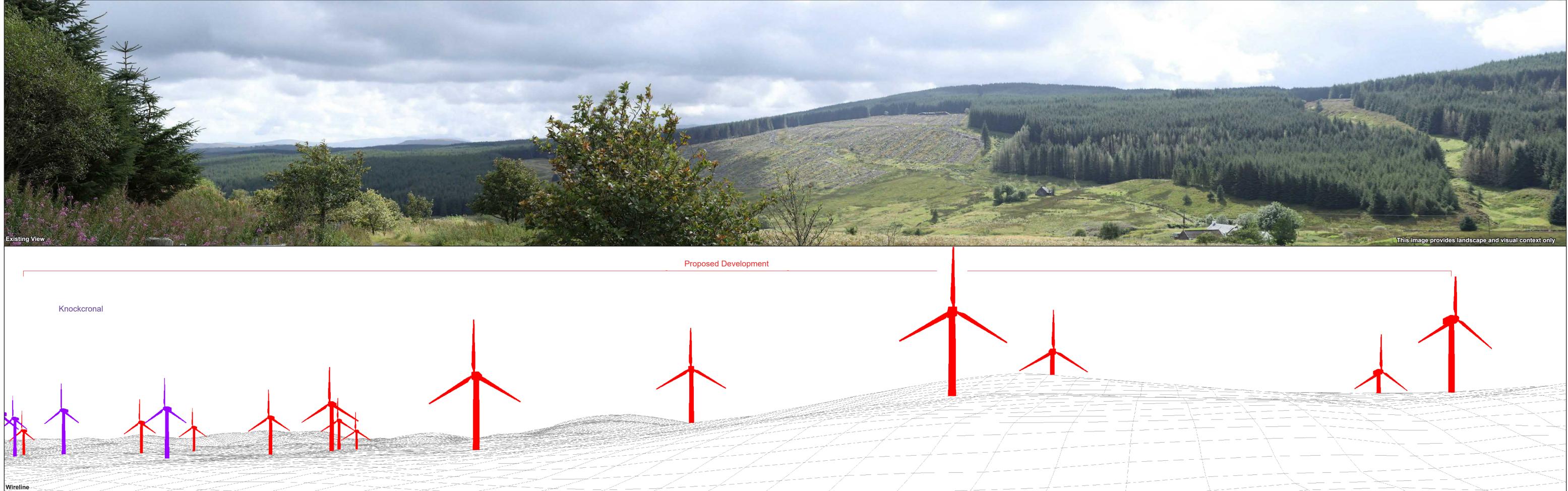
Figure 5.4.6a Viewpoint: Doughty Farm **Carrick Windfarm** 





Viewpoint OS Grid Reference:	232489, 597684	Horizontal Field of View:	90° (cylindrical projection)	Photographic Equipment:	Nikon D750, 50mm Lens	Paper Size:	841
Eye Level:	1.5m	Nearest Turbine:	T4: 1.83km	Date and Time Taken:	20/08/2020, 14:33	Image Size:	820
Direction of View:	As shown	Principal Viewing Distance	812.5mm	Camera Height:	1.5m AGL		

841 x 297mm 820 x 130mm Figure 5.4.6c Viewpoint: Doughty Farm **Carrick Windfarm** 



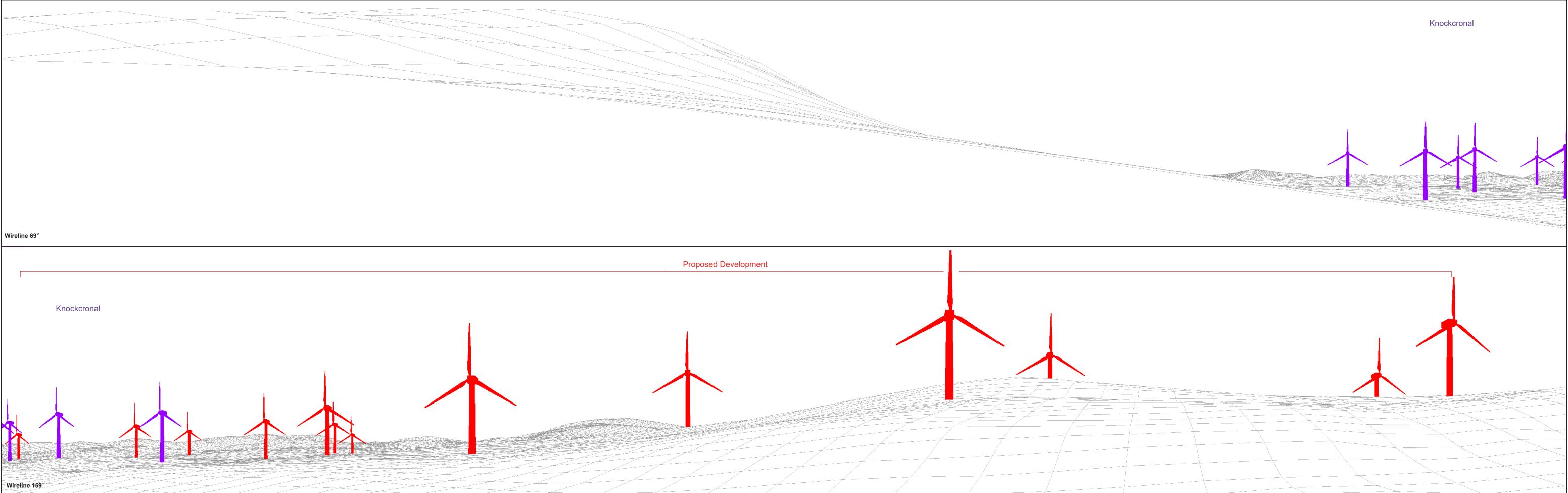


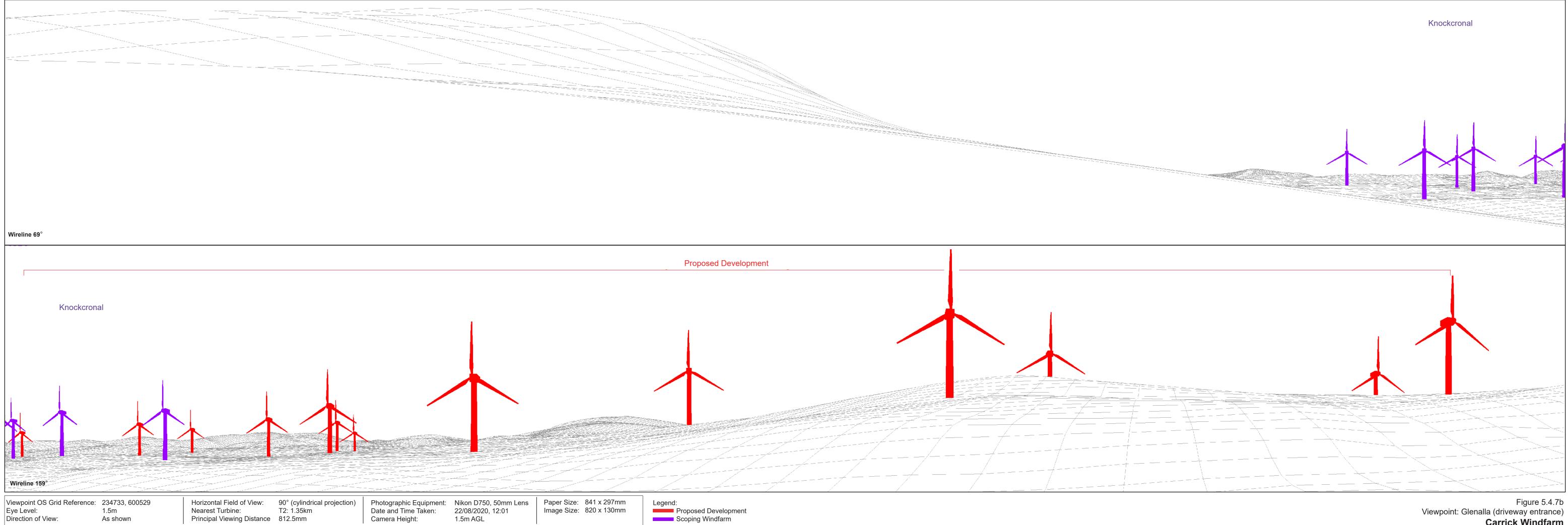
841 x 297mm 820 x 130mm

Legend: Proposed Development Scoping Windfarm

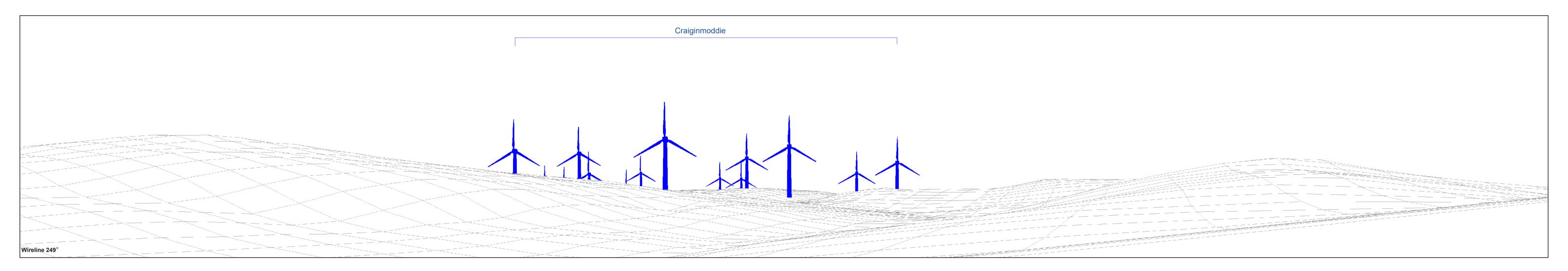
Note: Photo-panorama vertical field of view raised slightly higher than corresponding wireline to show position of property.

Figure 5.4.7a Viewpoint: Glenalla (driveway entrance) Carrick Windfarm

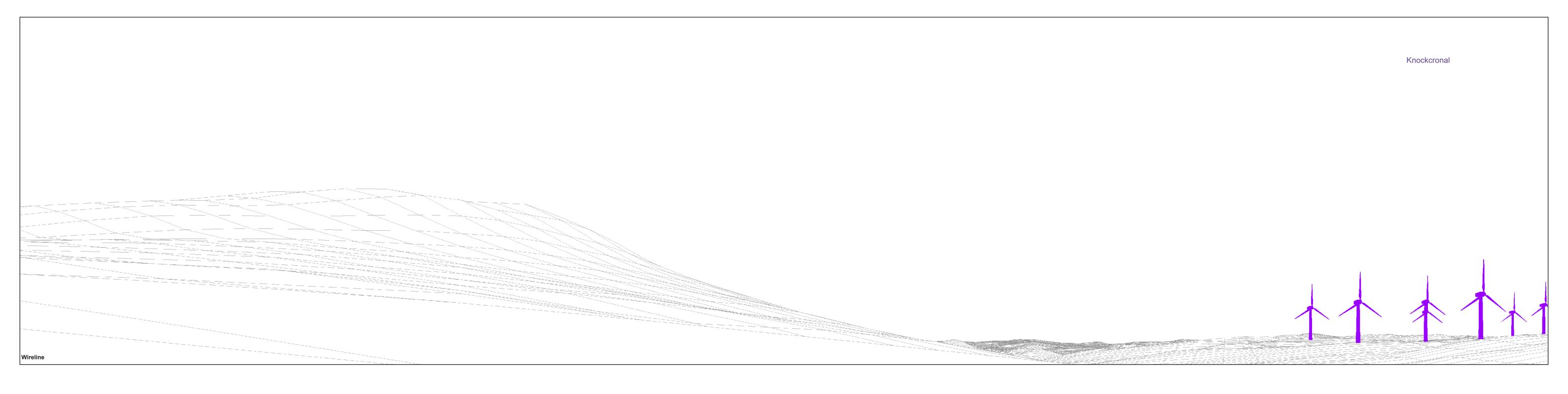




Carrick Windfarm

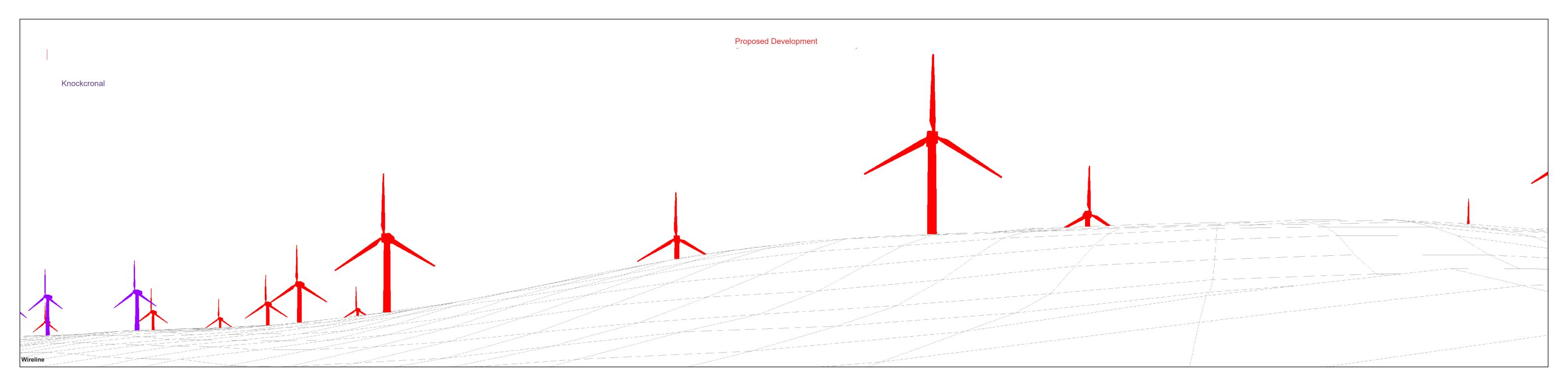


Viewpoint OS Grid Reference: 234733, 600529	Horizontal Field of View:	90° (cylindrical projection)	• • • •	Nikon D750, 50mm Lens	Paper Size:	
Eye Level:1.5mDirection of View:As shown	Nearest Turbine: Principal Viewing Distance	T2: 1.35km 812.5mm	Date and Time Taken: Camera Height:	22/08/2020, 12:01 1.5m AGL	Image Size:	820



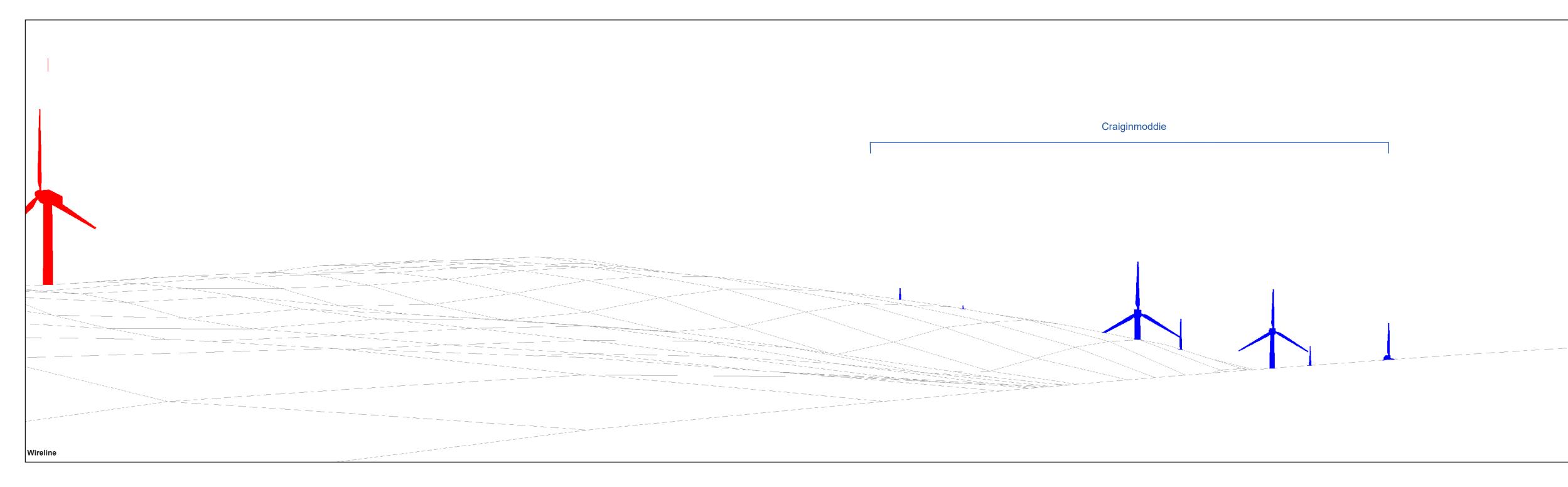
Viewpoint OS Grid Reference: 234696, 600196 Eye Level: 1.5m Direction of View: 64°	Horizontal Field of View:90° (cylindrical projection)Nearest Turbine:T2: 1.04kmPrincipal Viewing Distance812.5mm	Paper Size: 841 x 297mm Image Size: 820 x 130mm	Legend:
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Figure 5.4.7d Viewpoint: Glenalla (at property) **Carrick Windfarm** 



Viewpoint OS Grid Reference: Eye Level: Direction of View:	234696, 600196 1.5m 154°	Horizontal Field of View: Nearest Turbine: Principal Viewing Distance	90° (cylindrical projection) T2: 1.04km 812.5mm	841 x 297mm 820 x 130mm	Legend: Propose Scoping
Direction of view:	154	Principal viewing Distance	812.5000		Scoping

egend: Proposed Development Scoping Windfarm Figure 5.4.7e Viewpoint: Glenalla (at property) **Carrick Windfarm** 



Viewpoint OS Grid Reference: Eye Level: Direction of View:	234696, 600196 1.5m 244°	Horizontal Field of View: Nearest Turbine: Principal Viewing Distance	90° (cylindrical projection) T2: 1.04km 812.5mm	Paper Size: 841 x 297mm Image Size: 820 x 130mm	Legend: Proposed Development Application Windfarm
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Figure 5.4.7f Viewpoint: Glenalla (at property) **Carrick Windfarm** 



Carrick Windfarm



