

A. Technical Appendix 6.7: Residential Visual Amenity

A.1 Introduction

Background

- A.1.1 This Residential Visual Amenity Assessment (RVAA) has been prepared by Stephenson Halliday in accordance with Landscape Institute Technical Guidance Note 2/19: Residential Visual Amenity Assessment (15 March 2019). The Technical Guidance Note (TGN) identifies that:

“The purpose of carrying out a Residential Visual Amenity Assessment (RVAA) is to form a judgement, to assist decision makers, on whether a 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’.” (paragraph 5.1)

- A.1.2 It further notes that:

“Changes in views and visual amenity are considered in the planning process. In respect of private views and visual amenity, it is widely known that, no one has ‘a right to a view.’ ...

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.” (paragraphs 1.5 – 1.6)

- A.1.3 This assessment considers only what the resident may see from a property. Views or ‘visual amenity’ are just one component of residential amenity and the two should not be confused. The latter is a planning matter and may also include aspects such as noise, air quality, traffic, etc., in addition to residential visual amenity. RVAA does not consider or provide information on other aspects of residential amenity and it is for decision makers to weigh all these aspects, and documents/assessments relating to them, in determining the acceptability of a proposal.

- A.1.4 Overall residential amenity is discussed within the Planning Statement accompanying the application for the Proposed Development.

- A.1.5 This assessment, and the process of RVAA, seeks to identify where effects on residential visual amenity are of such a nature or magnitude that they may need to be considered in the overall balance of ‘Residential Amenity’ or ‘Living Conditions’. The point at which this happens is referred to as the Residential Visual Amenity Threshold.

A.2 Approach

- A.2.1 TGN 2/19 advocates a four step process to RVAA with the first three falling broadly within the scope of LVIA where the magnitude and significance of visual effects is assessed.

- A.2.2 The fourth step involves a further assessment of the change to visual amenity of individual properties identified as “having the greatest magnitude of change” and identifying whether the RVA threshold is reached.

Methodology

Study Area and Initial Assessment

- A.2.3 There are no standard criteria for defining the RVAA study area and this is determined on a case by case basis. The guidance note identifies that for large structures, such as wind turbines, a preliminary study area of 1.5 – 2 km radius may be appropriate to begin identifying properties for inclusion within RVAA, but for other developments the study area would be much reduced in proportion to their size. In this case, a study area of 2 km has been used.

- A.2.4 Within the RVAA study area all residential properties are identified. An initial appraisal is undertaken to identify those properties likely to experience the greatest effects, therefore requiring further detailed assessment, and those where effects would be less and unlikely to approach the RVA threshold. This process may draw on the findings of the Landscape and Visual Impact Assessment (LVIA) as a starting point and is supplemented by other tools including Zone of Theoretical Visibility (ZTV) maps, wireframes and field work.

Further Detailed Assessment

- A.2.5 For those properties that have been identified at the initial stage (see Table A.1) as requiring further detailed assessment the process follows the following key stages:

- evaluation of baseline visual amenity;
- assessment of likely change to the visual amenity of properties; and
- forming the RVAA judgement.

- A.2.6 Properties are usually assessed individually but may be considered in groups where their outlook or views are essentially the same; for example, a row of houses that all share an open outlook towards the Site. Where properties are grouped for assessment this will be clearly identified and reasons for grouping described.

Baseline Visual Amenity

- A.2.7 The existing baseline visual amenity is described for each property and is informed by desk study and field work. Site visits to all individual properties included within the detailed assessment are undertaken where access can be agreed with property owners. Where access is not possible this step is informed by visits to nearby publicly accessible areas. Visual amenity is described ‘in the round’ and considers both views from the dwelling itself, the domestic curtilage and views experienced when arriving or leaving the property.

- A.2.8 It has been noted where the owners of a dwelling have a financial involvement in the project, however all properties have been treated equally in terms of the potential effects upon residential visual amenity.

Likely Change to Visual Amenity

- A.2.9 The change to baseline views and visual amenity as a result of the Proposed Development is described for each property and a judgement on the magnitude of effects likely to be experienced is provided. This may involve consideration of the following factors:

- Distance between the property and Proposed Development and their relative locations (e.g. up/down hill).
- Nature of available views (e.g. panoramic, enclosed) and the effect of daily or seasonal variations.
- Direction of view or aspect of property affected.
- Extent to which the Proposed Development may be visible from various parts of the property (e.g. dwelling, rooms, access, garden).
- Scale of change to views, including the proportion of view occupied by the Proposed Development.
- Compositional changes (e.g. loss/addition of landscape features such as woodland).
- Contrast or integration of new features with the existing views.
- Duration and nature of changes (e.g. temporary/permanent, intermittent/continuous).

Mitigation opportunities

- A.2.10 This stage may be supported by a range of visual aids as required including maps, ZTV studies, photography and visualisations. The choice of visual aids is determined on a case by case basis and may be informed by consultation. In line with best practice guidance, the type of visualisation should be proportionate to the nature of the Proposed Development and assessment stage.

RVAA Judgement

- A.2.11 This final stage is concerned with identifying *“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”* (paragraph 4.18). This is the key concern of RVAA and judgements on the RVA threshold are set out clearly and unambiguously.

Cumulative

- A.2.12 RVAA is undertaken against the baseline, as described in the accompanying LVIA. As stated in the TGN, future cumulative visual effects are not assessed within the RVAA, as the focus of the RVAA is on the existing visual amenity. Some commentary on other consented or proposed schemes may also be included where this may make a notable difference to the outlook from a given property although the assessment of effects relates solely to those of the Proposed Development.

Distances/ Directions

- A.2.13 Where distances and directions are given within the assessment, these are distances between the nearest part of the property and the nearest turbine, unless explicitly stated otherwise. Distances given are rounded to the nearest 10 m to account for the level of accuracy available in techniques used to measure (usually based on aerial photography within a GIS). Turbine micro-siting allowances are considered where they may be relevant to the assessment.

A.3 Assessment

Introduction

A.3.1 Figure 1 illustrates the 2 km RVAA study area and identifies all nearby residential properties. In total there are 8 properties located within the RVAA study area although two additional properties have been included beyond this where views towards the Proposed Development are relatively open and there is the potential for notable effects.

Initial Assessment

A.3.2 An initial assessment has been undertaken in order to identify those properties with the highest magnitude of change where there is potential for the RVA threshold to be reached. This is supported by the ZTVs (Figures 6.5 – 6.6 and A.1 below) and wireline visualisations within Annex 1 of this document and site visits undertaken to assess views from individual properties.

A.3.3 In respect of proposed aviation lighting, as illustrated on wirelines, lights would tend to be most notable from external areas of a property where external lighting is switched off or not present. Internally, the turbine lights are only likely to be noticed in rooms where curtains and blinds are not in use and lights are switched off. If room lights are switched on then reflection of these in the dark windows would largely obscure external views.

A.3.4 Where it is identified that effects at properties have the potential to reach the RVA threshold this is identified, and further detailed assessment is provided on individual property assessment sheets in the following section. The initial assessment is provided in Table A.1 below.

Construction

A.3.5 In terms of construction phase effects, the most notable of these would arise from visibility of cranes during the final erection of turbines. This would be a short-term activity and the scale of change arising would be no greater than that of the operational phase of the Proposed Development.

A.3.6 The Site access, borrow pits, laydown areas and construction compounds would all be located away from residential properties considered within this assessment. There would be no notable visibility of these elements and they would have little or no impact on residential visual amenity.

Table A.1 Initial Assessment

Ref	Property	Comments	Magnitude of Change	Level of Effect
P1	Doughty Farm	Nearest turbine: T10 (1.13 km NW) This property sits in an open, elevated position above the minor valley of the Auchengairn Burn. The rear elevation of the two storey house is oriented northwest, towards the Site, and the main garden is also located here. Two trees are located in the garden although are unlikely to provide notable screening	Substantial	Major

Ref	Property	Comments	Magnitude of Change	Level of Effect
		of the Proposed Development and open views towards the site are possible. Six turbines at the southern end of the Proposed Development would be seen in relatively open view looking along the valley, just in front of or rising out of forestry which would largely screen turbine bases and access tracks. Turbines to the northern end of the Site would all be visible to some degree although the rising landform of Doughty Hill would provide some screening, particularly of the more distant turbines. Turbines would occupy approximately 100° of the view from the rear of the property and the two nearest turbines (T10/T11) would appear very prominent but would not be so imposing as to be considered overbearing. This property is financially involved in the Proposed Development and is not considered further in this assessment.		
P2	Garleffin	Nearest turbine: T7 (1.85 km SW) This property is located in a small area of open fields/moorland surrounded by commercial forestry, it appears derelict and not in current residential use. As illustrated by the ZTVs and the wireline in Annex 1, only three turbine blades would be visible appearing above the intervening landform and in reality, nearby forestry would further reduce the level of visibility. This property is immediately north of the proposed Carrick wind farm site and if that were to proceed it is likely that some of its turbines would be seen in front of the Proposed Development.	Negligible	Negligible
P3	Glenalla	Nearest turbine: T7 (1.82 km SW) This property is located in a small area of open fields/moorland surrounded by commercial forestry. The rear elevation of the single storey house is oriented to the southwest, towards the Site, and there are open views along the track approaching it. As illustrated by the wireline in Annex 1, the hubs and rotating blades of three turbines would be seen	Substantial/ Moderate	Major/ Moderate

Ref	Property	Comments	Magnitude of Change	Level of Effect
		as an evenly spaced row above the intervening forestry and would be quite prominent although would only occupy a limited field of view (c. 15°). This would include aviation lighting at night albeit seen at notably reduced intensity due to the directional intensity mitigation. Four further blade tips would also potentially be visible although intervening forestry would largely screen these. This property is immediately north of the proposed Carrick wind farm site and if that were to proceed it is likely that some of its turbines would be seen in front of the Proposed Development.		
P4	Knockrochar Farm	Nearest turbine: T3 (2.21 km SE) The property is situated on a relatively open hillside and comprises a large, detached house with a number of large farm buildings immediately to the southeast. Existing turbines at Hadyard Hill are seen in views south from the property and access track. The main elevations of the house are oriented northeast/southwest and look away from the Site. There would be open views of the Proposed Development on the track approaching the property, this would include aviation lighting at night albeit seen at notably reduced intensity due to the directional intensity mitigation. As illustrated by the wireline in Annex 1 the turbines would be seen as a relatively regular and even array occupying an approximately 55° field of view. The farm buildings would partially screen views of turbines from the parking area to the front of the house and other external garden areas and views of the proposed turbines from within the house would be unlikely.	Moderate	Major/ Moderate
P5	Dobbingstone Farm	Nearest turbine: T3 (1.69 km SE) This property comprises a detached house and farm buildings to the immediate west and southwest, accessed via a long track alongside Knockrochar Burn from which existing turbines at Hadyard Hill are visible. Trees along the burn and mature garden	Substantial	Major

Ref	Property	Comments	Magnitude of Change	Level of Effect
		vegetation to the south of the house provide some enclosure. The rear elevation of the house and main garden area are oriented to the southeast, facing the Site. As illustrated by the wireline in Annex 1, the rising landform provides notable screening of turbines in the northern part of the Site although those to the south would be in relatively open view across the hilltop of Craiginmoddie. Further detailed assessment is provided on an individual property assessment sheet.		
P6	Delamford Farm	Nearest turbine: T3 (1.63 km SE) This property is set low in the landscape, nestled in the minor valley of the Delamford Burn although retains a relatively open aspect. It comprises a detached house with multiple outbuildings to the east and southeast of the house. Existing Hadyard Hill turbines are openly visible at close proximity, extending away over Delamford Hill with the closest of these turbines less than 800m away. The rear of the house is oriented to the east/southeast, facing the Site. As illustrated by the wireline in Annex 1, the proposed turbines would be seen in relatively open view, appearing to extend the existing Hadyard Hill wind farm. Further detailed assessment is provided on an individual property assessment sheet.	Substantial	Major
P7	Delamford Cottage	Nearest turbine: T3 (1.64 km SE) This property is set low in the landscape, nestled in the minor valley of the Delamford Burn although retains a relatively open aspect. It comprises a detached house set within an open garden, defined by post and wire and wooden fences. Existing Hadyard Hill turbines are openly visible at close proximity from the rear elevation and garden, extending away over Delamford	Substantial/ Moderate	Major

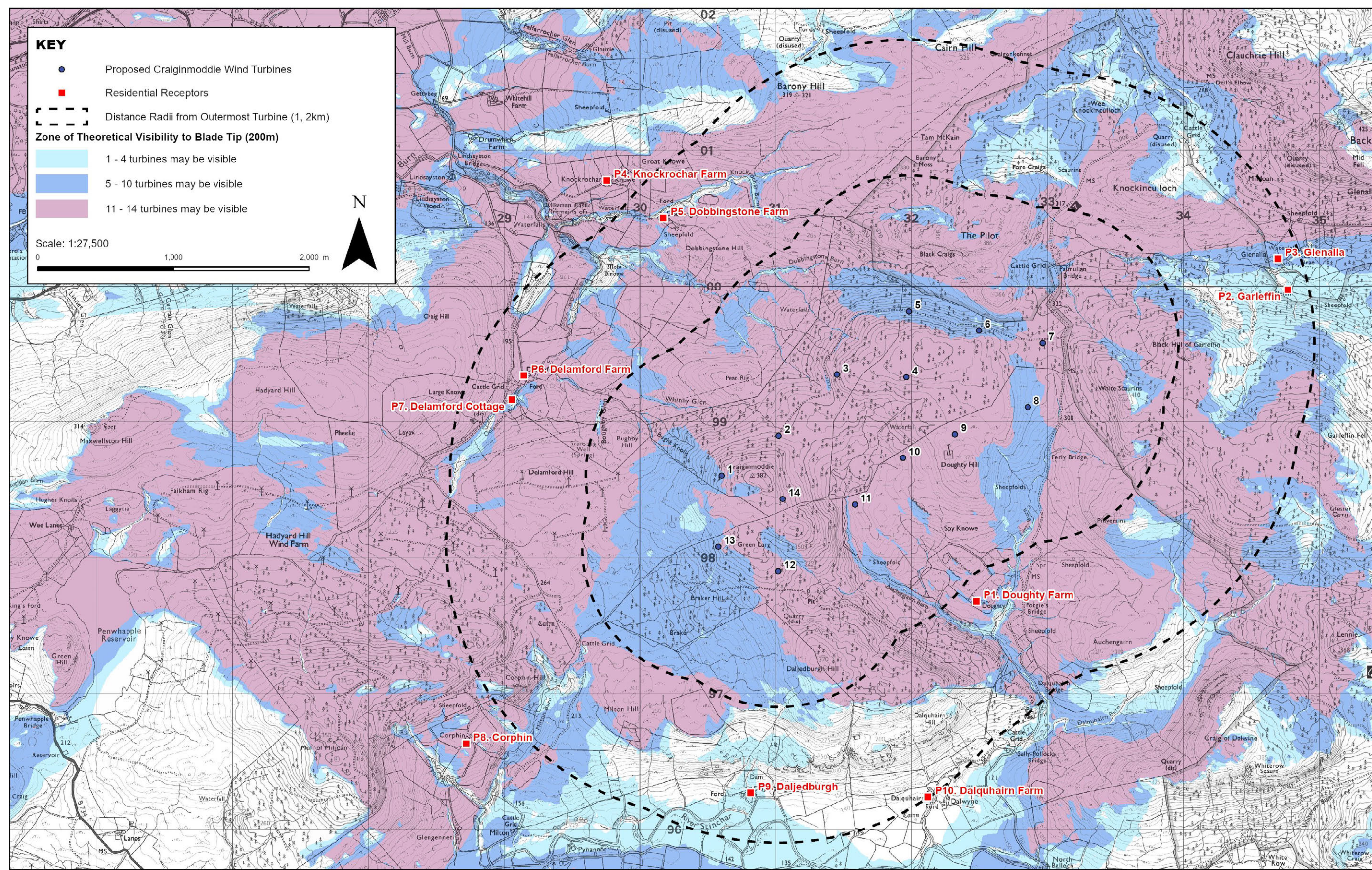
Ref	Property	Comments	Magnitude of Change	Level of Effect
		Hill with the closest of these turbines less than 600m away. The main elevations of the house are oriented northeast/southwest and away from the Site and there are no windows on the gable end facing the Site. Views of the Proposed Development would be limited to the garden areas. As illustrated by the wireline in Annex 1, from parts of the garden the rising landform of Craiginmoddie would screen views of the more distant proposed turbines although the closer ones would be seen in relatively open view, appearing to extend the existing Hadyard Hill wind farm. Proposed aviation lighting would also be visible at night on the 8 turbine hubs that would be visible, and some of the towers, albeit seen at notably reduced intensity due to the directional intensity mitigation.		
P8	Corphin	Nearest turbine: T13 (2.35 km NE) This property occupies an elevated position on Corphin Hill, on the northern side of the Stinchar Valley at the top of the Corphin Burn. It comprises a detached, single storey house in an open garden with farm buildings to the north. There are open views looking across and along the valley to the south and east. The Proposed Development would be openly visible to the northeast, from the gardens and in direct views from the northeast elevation of the house. Turbines would appear in three rows extending away over forested hilltops. The array would appear somewhat cluttered with notable stacking of turbines although would occupy a limited field of view, approximately 20°, and would feel remote from the property, seen across a valley. Proposed aviation lighting would also be visible at night on the 10 turbine hubs that are visible, and approximately four of the towers, albeit seen at a reduced intensity due to the directional intensity mitigation.	Substantial/ Moderate	Major
P9	Daljedburgh	Nearest turbine: T12 (1.65 km N) This property comprises a detached farmhouse surrounded by large farm	Negligible	Minor

Ref	Property	Comments	Magnitude of Change	Level of Effect
		buildings to the east, north and west, situated at the foot of Daljedburgh Hill. As illustrated by the wireline in Annex 1, the rising landform of the hill would largely screen the Proposed Development and only two blade tips would potentially be visible appearing above the intervening landform.		
P10	Dalguhairn Farm	Nearest turbine: T12 (1.99 km NW) As illustrated by the ZTV on Figure A.1 (below) and the wireline in Annex 1, this property would have no views of the Proposed Development.	None	None

A.3.7 In summary, further detailed assessment is provided below for the following properties:

- P5 Dobbingsstone Farm
- P6 Delamford Farm

Figure A.1- Residential Properties



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P5 Dobbingstone Farm



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PROPERTY NAME:	Dobbingstone Farm
PROPERTY REFERENCE:	P5
DISTANCE TO NEAREST TURBINE:	1.69 km
ORIENTATION OF FRONTAGE	NW
DIRECTION TO TURBINES:	SE
RESIDENT DETAILS:	No involvement
SURVEY DETAILS:	No access to property

Baseline Visual Amenity:

The property is relatively remote and accessed via a long track from the minor road that runs between the B7035, east of Dailly, passing between Delamford Hill and Hadyard Hill to Milton, within the Stinchar Valley. The access track follows the heavily vegetated Knockrochar and Lindsayston Burn’s which provide some enclosure within the wider large scale and open landscape. The property comprises a 1.5 storey detached house that sits at the eastern end of an area of improved, enclosed pasture and at the transition to unimproved pasture and moorland on higher ground. Barns are situated to the north of the house, across an open yard and mature gardens wrap around the southern and eastern edges of the property. Trees and shrubs here provide some screening of views to the south and, to a lesser degree, to the east. To the immediate southeast of the property, north of Dobbingstone Burn, the landform rises to a low hill at around 250 m AOD (c. 50 m above the level of the property) which constrains lower level views in this direction.

The existing Hadyard Hill turbines are widely visible from the track approaching the property, extending over Delamford Hill and wrapping round behind Hadyard Hill towards Penwhapple Reservoir. There are no windows on the house with views of existing turbines and garden vegetation would largely screen or filter views from the yard and some parts of the rear garden.

Likely Change to Visual Amenity:

The Proposed Development would be visible from the track approaching the property, the main garden area and in direct views from windows on the rear elevation of the house. The turbines would be seen extending across and behind nearby hilltops; as illustrated by the wireline in Annex 1, it would appear as a continuation of the Hadyard Hill turbines albeit there would be a slight gap between the two arrays and most of Hadyard Hill would not be visible from within the house itself. Four turbines at the southern end of the array (T1, T2, T13 and T14) would be quite openly visible, along with T3, although lower parts of the towers would be partly screened by forestry or the intervening landform. The remaining turbines would be much more notably screened by the intervening landform, rising to the immediate southeast of the property and on the western sides of Dobbingstone Hill and Craiginmoddie, with only three more hubs (T4, T11 and T12) potentially visible above. Only blade tips of the remaining turbines would potentially be visible and overall, the array would occupy a field of view of 63°. The proposed turbines would appear larger than the existing Hadyard Hill turbines but would also be closer and the scale difference between the turbines of the two schemes would not be particularly notable.

Proposed aviation lighting would be visible at night on the 8 turbine hubs that are visible while tower lights are only likely to be visible on three of these (T1, T2 and T14). As illustrated by the aviation lighting ZTV on Figure 6.12, this property is within the area benefitting from the directional intensity mitigation where the brightness of the proposed aviation lights would be reduced.

Magnitude of Change: Substantial

RVAA Judgement:

The turbines would be a prominent new addition in views from the rear of the property although some of these are already influenced by Hadyard Hill, most notably from the access track and gardens, and turbines at the northern end of the array would be substantially screened by intervening landform. Effects on visual amenity at the property would be Major although there would be no views of turbines from rooms at the front of the house and from the yard and some parts of the garden they would be partially screened or filtered through existing vegetation. Visual effects here would not be sufficient to meet the Residential Visual Amenity threshold.

P6 Delamford Farm



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PROPERTY NAME:	Delamford Farm
PROPERTY REFERENCE:	P6
DISTANCE TO NEAREST TURBINE:	1.63 km
ORIENTATION OF FRONTAGE	N
DIRECTION TO TURBINES:	E/SE
RESIDENT DETAILS:	No involvement
SURVEY DETAILS:	Property viewed from adjacent public road

Baseline Visual Amenity:

This property is set low in the landscape, nestled in the minor valley of the Delamford Burn although retains a relatively open aspect, as illustrated opposite, looking out over undulating uplands. The detached, single storey house is situated to the western side of the property with multiple outbuildings to the east and southeast. The main garden area appears to be on the southern side of the house although the majority of the external space around the property appears to be in agricultural use. A number of large, mature trees are scattered around the periphery of the property and nearby field boundaries although provide limited screening of outward views.

The existing Hadyard Hill turbines are openly visible at quite close proximity, extending away over the open extent of Delamford Hill, as illustrated opposite and on the wireline in Annex 1. The closest of the Hadyard Hill turbines is located around 760 m away and there are a number of others within 1 km of the property.

Likely Change to Visual Amenity:

As illustrated on the wireline in Annex 1, the Proposed Development would be seen extending across open and forested hill tops to the east and southeast, appearing to extend the operational Hadyard Hill wind farm by approximately 54°. Given the greater distance, the proposed turbines would not appear any larger in scale or more prominent than the existing turbines. Most of the turbine hubs would be visible although the lower parts of towers would be screened, as would all but the blades of three of the more distant turbines (T7, T8 and T11). The array would appear relatively even although there is some slight stacking in several pairs of turbines (T3/T4, T2/T10 and T1/T14).

Proposed aviation lighting would be visible at night on the 11 turbine hubs that are visible while tower lights are only likely to be visible on those along the western side of the array (T1, T2, T3, T5, T13 and possibly T14). As illustrated by the aviation lighting ZTV on Figure 6.12, this property is within the area benefitting from the directional intensity mitigation where the brightness of the proposed aviation lights would be notably reduced.

Magnitude of Change: Substantial

RVAA Judgement:

The turbines would appear to extend the existing Hadyard Hill wind farm here, increasing the prevalence of turbines in views but not fundamentally changing the current outlook. Effects on visual amenity at the property would be Major although there would be no views of turbines from windows on the northern and western facing elevations. Visual effects here would not be sufficient to meet the Residential Visual Amenity threshold.



View of property from southwest

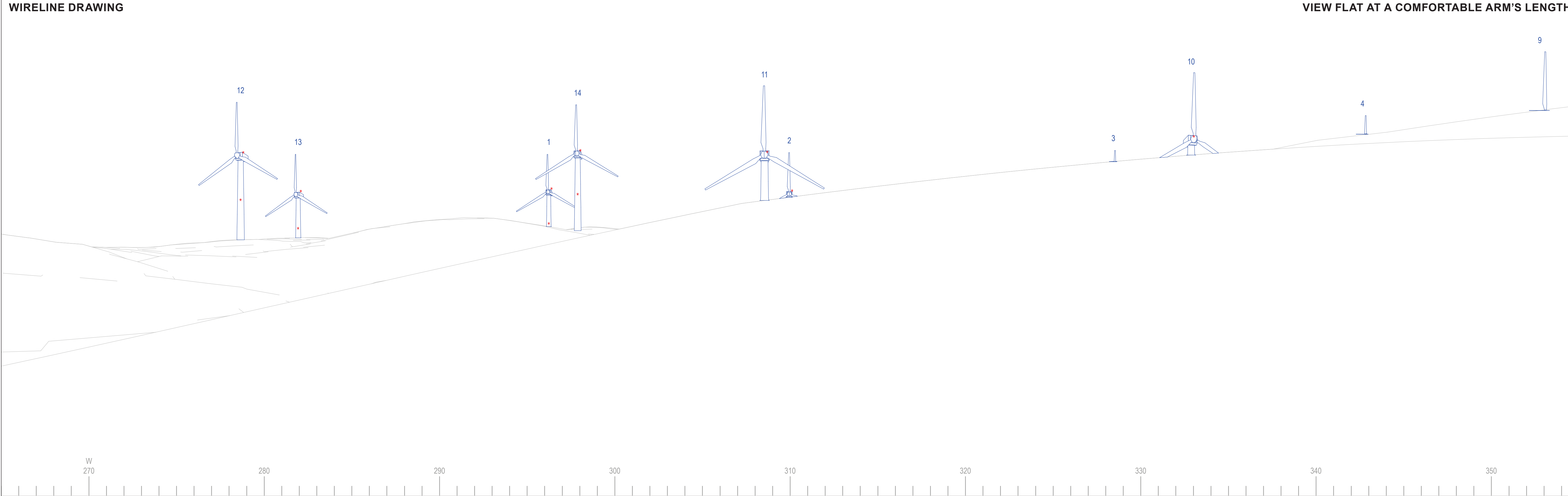


View from adjacent road looking towards the Site – Delamford Farm to left of view, P7 Delamford Cottage to right with Hadyard Hill turbines beyond

A.4 Summary and Conclusions

- A.4.1 There are a total of 8 individual residential properties within the RVAA study area, although two additional properties have been included beyond this where views towards the Proposed Development are relatively open and there is the potential for notable effects.
- A.4.2 In terms of construction phase effects, the most notable of these would arise from visibility of cranes during the final erection of turbines. This would be a short-term activity and the scale of change arising would be no greater than that of the operational phase of the Proposed Development.
- A.4.3 The Site access, borrow pits, laydown areas and construction compounds would all be located away from residential properties considered within this assessment. There would be no notable visibility of these elements and they would have little or no impact on residential visual amenity.
- A.4.4 In terms of operational phase effects, three of the properties would have little or no visibility of the Proposed Development and changes to views would be negligible. Five of the remaining properties would experience notable effects although these would not be of the highest magnitude and would not have the potential to meet the RVA threshold.
- A.4.5 Seven of the properties would have some visibility of proposed aviation lighting. Lights would tend to be most notable from external areas of a property where external lighting is switched off or not present. Internally, the turbine lights are only likely to be noticed in rooms where curtains and blinds are not in use and lights are switched off. If room lights are switched on, then reflection of these in the dark windows would largely obscure external views.
- A.4.6 Only two properties, P5 Dobbingsstone Farm and P6 Delamford Farm, were identified in the initial assessment as potentially experiencing the highest magnitude effects and having the potential to meet the Residential Visual Amenity threshold. Detailed assessment of these properties identifies that they would both experience a Major level of effects as a result of turbines seen in relatively open view in quite close proximity. There would, however, appear to remain ample areas within each property that would be unaffected by views of the Proposed Development and effects would not be sufficient to meet the Residential Visual Amenity threshold.
- A.4.7 The assessment concludes that in no case would effects be of such nature and / or magnitude that it potentially affects living conditions at any property to the point it becomes an unattractive place to live, when judged objectively in the public interest.

Annex 1 – Residential Wirelines



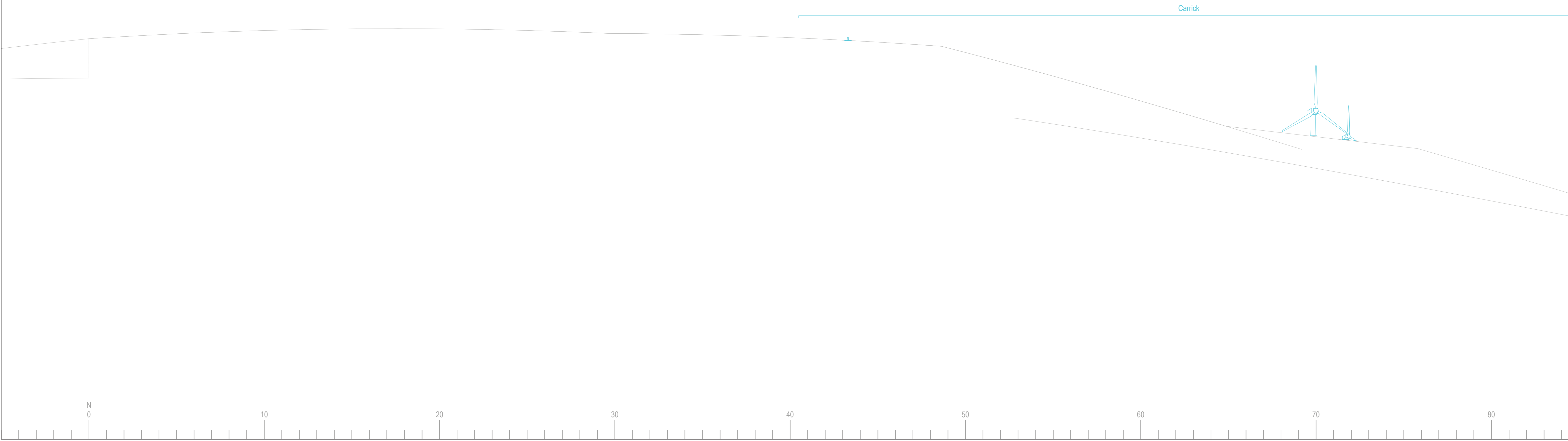
Date Dec 2020	By SPB		Notes: 1) This visualisation is a planar projection panorama. View flat at a comfortable arm's length. 2) This data has been output directly from the wireline model. It ignores screening effects of woodland and other intervening objects. 3) All directions given as bearings relative to Grid North (BNG). 4) Location map scale: 1:25,000 Contains Ordnance Survey data © Crown copyright and database right 2020 © Crown copyright. All rights reserved. 2020 Licence number: 100020565
Image Size 820 x 260mm	QA DT		
Paper Size 840 x 297mm	Rev -		
CRE-009G-Residential-Wires.indd			
Viewpoint Information:			
Grid Reference:		232475E 597681N	
Ground Height:		249.85m AOD	
Direction of Centre of View: ³		310°	
Horizontal Field of View:		90°	
Vertical Field of View:		18.2°	
Principal Distance:		812.5mm	
Layout Information:			
Layout:		craiginmoddie.wfl	
Hub Height:		122.5m	
Height to Blade Tip:		200m	
Nearest Visible Turbine:		T11 @ 1144m	
Number of Sets of Tips Visible: ²		10	
Number of Hubs Visible: ²		7	
Wireline Key:			
		Craiginmoddie	
		Operational / Under Construction	
		Scoping	
		Hub Light (Craiginmoddie only)	
		Tower Light at half tower height (Craiginmoddie only)	

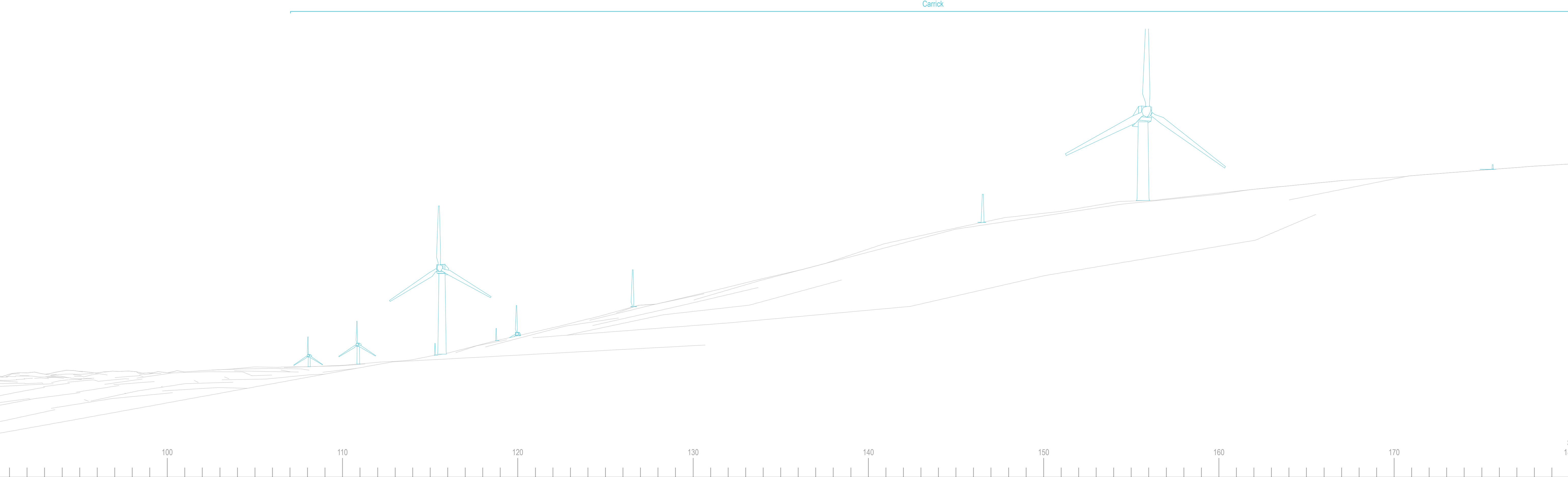


Craiginmoddie Wind Farm

P1 Doughty Farm

WIRELINE VISUALISATION 1a



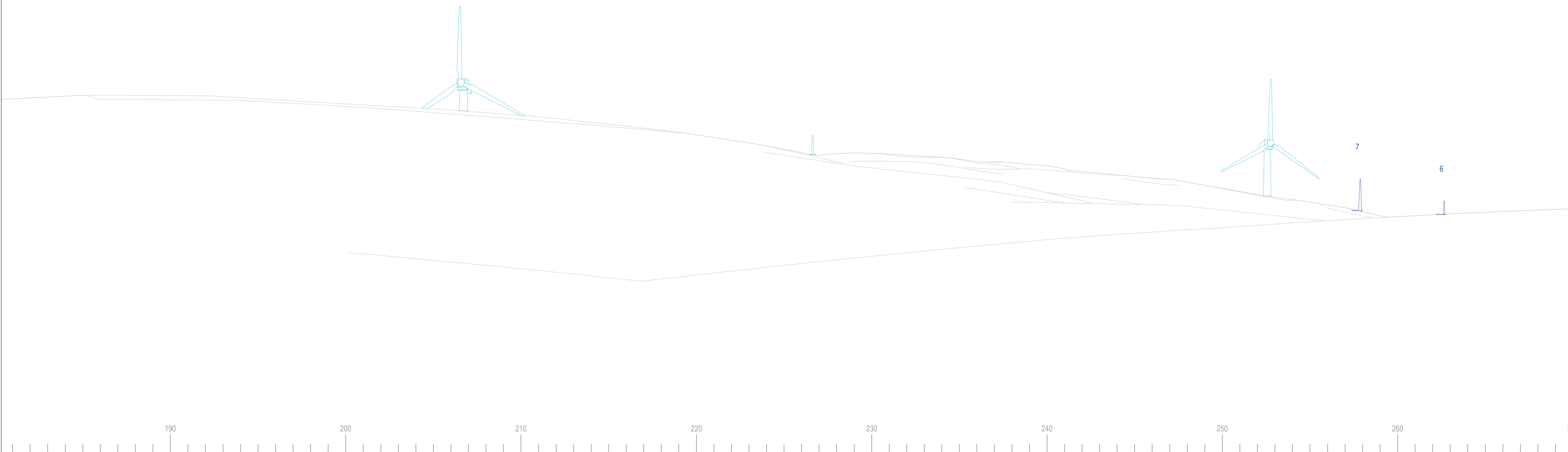


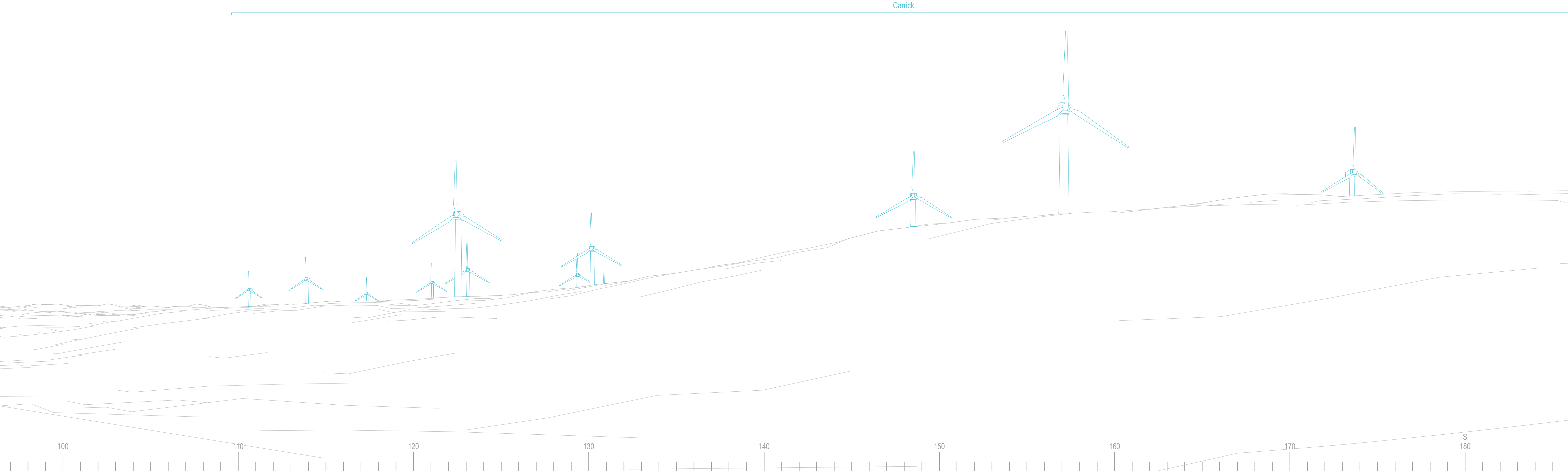
Date Dec 2020	By SPB		Notes: 1) This visualisation is a planar projection panorama. View flat at a comfortable arm's length. 2) This data has been output directly from the wireline model. It ignores screening effects of woodland and other intervening objects. 3) All directions given as bearings relative to Grid North (BNG). 4) Location map scale: 1:25,000 Contains Ordnance Survey data © Crown copyright and database right 2020 © Crown copyright. All rights reserved. 2020 Licence number: 100020565	Viewpoint Information: Grid Reference: 234768E 599974N Ground Height: 261.94m AOD Direction of Centre of View: ³ 135.35° Horizontal Field of View: 90° Vertical Field of View: 18.2° Principal Distance: 812.5mm	Layout Information: Layout: craiginmoddie.wfl Hub Height: 122.5m Height to Blade Tip: 200m Nearest Visible Turbine: T7 @ 1846m Number of Sets of Tips Visible: ² 2 Number of Hubs Visible: ² 0	Wireline Key: Craiginmoddie Operational / Under Construction Scoping Hub Light (Craiginmoddie only) Tower Light at half tower height (Craiginmoddie only)
Image Size 820 x 260mm	QA DT					
Paper Size 840 x 297mm	Rev -					
CRE-009G-Residential-Wires.indd						



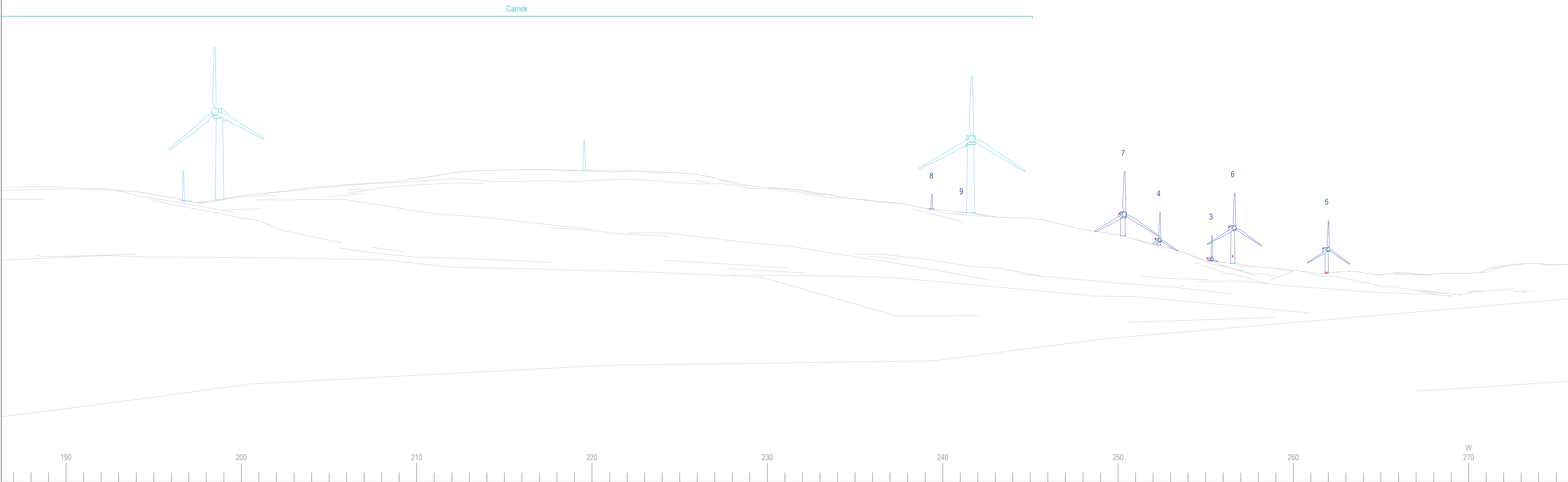
Craiginmoddie Wind Farm

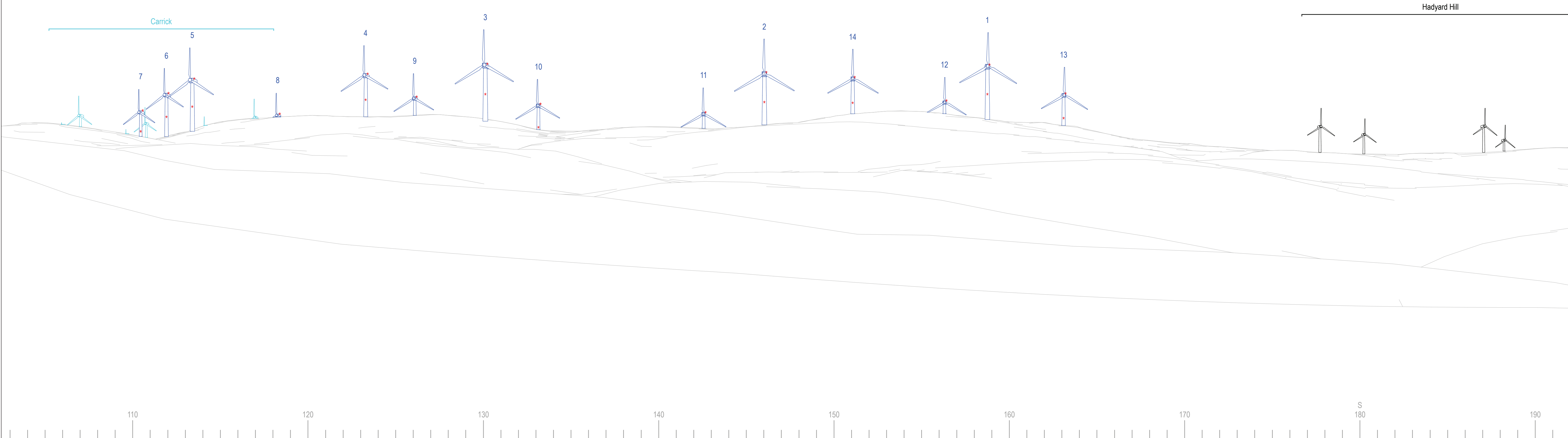
P2 Garleffin
WIRELINE VISUALISATION 2a

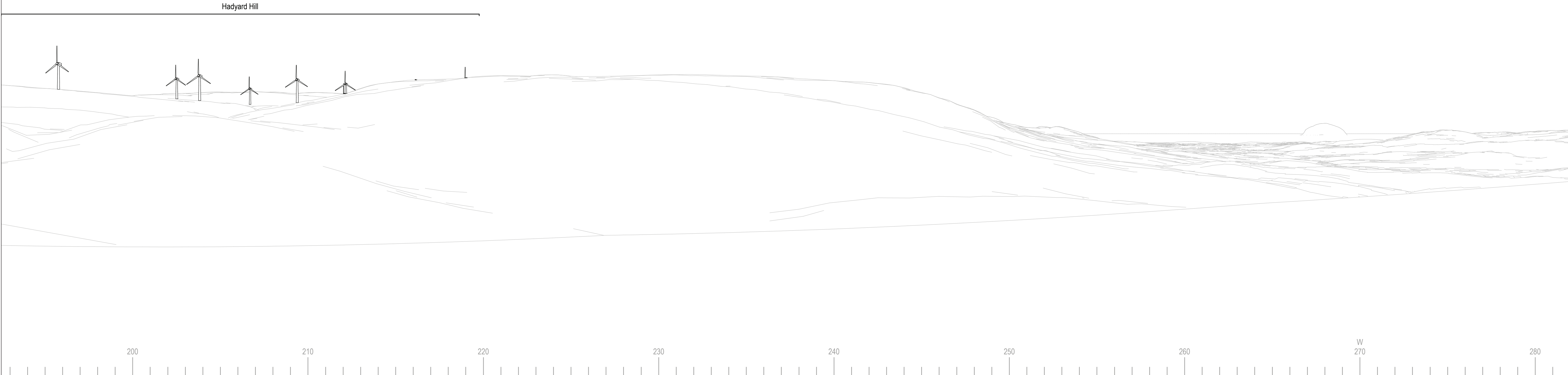


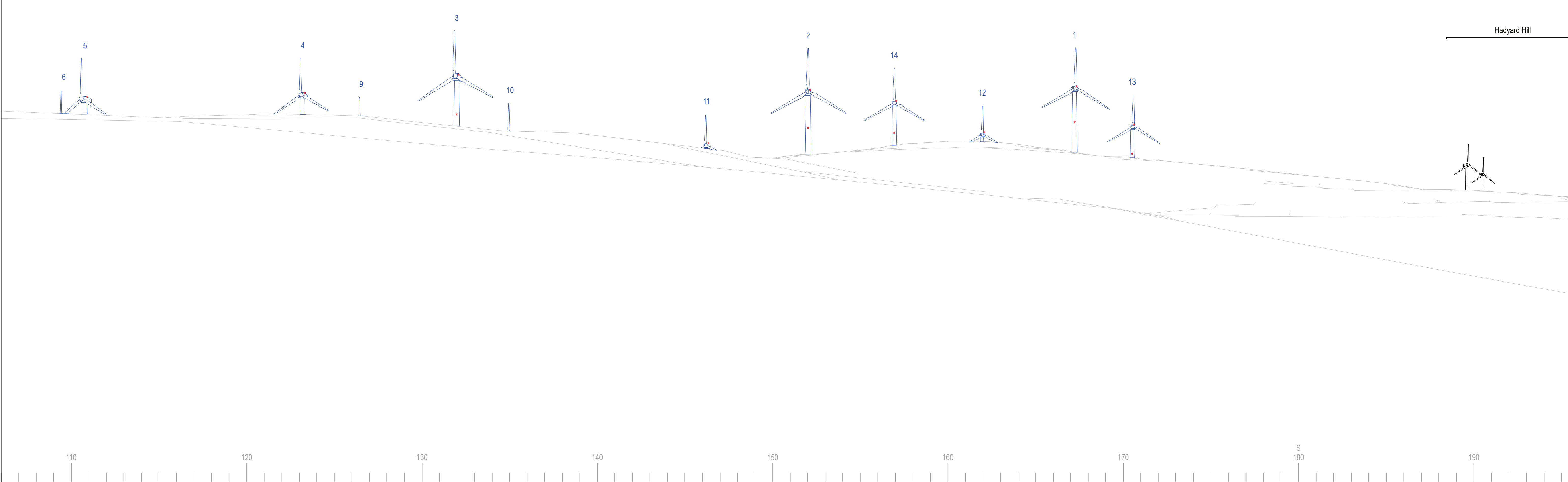


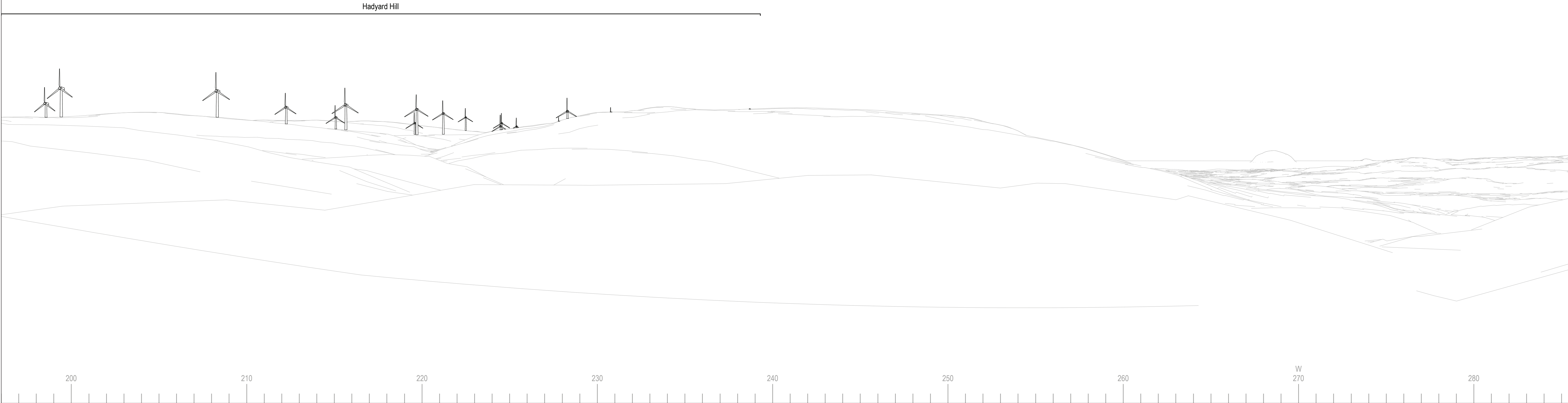
Date Dec 2020 Image Size 820 x 260mm Paper Size 840 x 297mm	By SPB QA DT Rev -		Notes: 1) This visualisation is a planar projection panorama. View flat at a comfortable arm's length. 2) This data has been output directly from the wireline model. It ignores screening effects of woodland and other intervening objects. 3) All directions given as bearings relative to Grid North (BNG). 4) Location map scale: 1:25,000 Contains Ordnance Survey data © Crown copyright and database right 2020 © Crown copyright. All rights reserved. 2020 Licence number: 100020565	Viewpoint Information: Grid Reference: 234694E 600201N Ground Height: 259.6m AOD Direction of Centre of View: ³ 141.3° Horizontal Field of View: 90° Vertical Field of View: 18.2° Principal Distance: 812.5mm	Layout Information: Layout: craiginmoddie.wfl Hub Height: 122.5m Height to Blade Tip: 200m Nearest Visible Turbine: T7 @ 1838m Number of Sets of Tips Visible: ² 7 Number of Hubs Visible: ² 5	Wireline Key: - Craiginmoddie - Operational / Under Construction - Scoping - Hub Light (Craiginmoddie only) - Tower Light at half tower height (Craiginmoddie only)			Craiginmoddie Wind Farm P3 Glenalla WIRELINE VISUALISATION 3a
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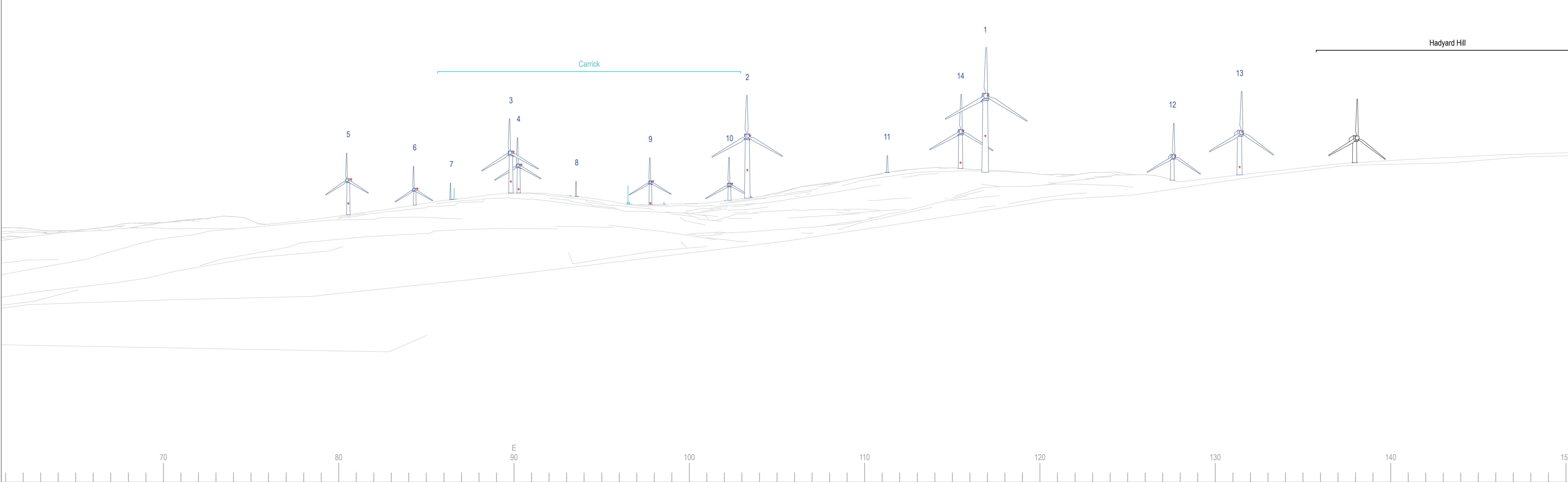


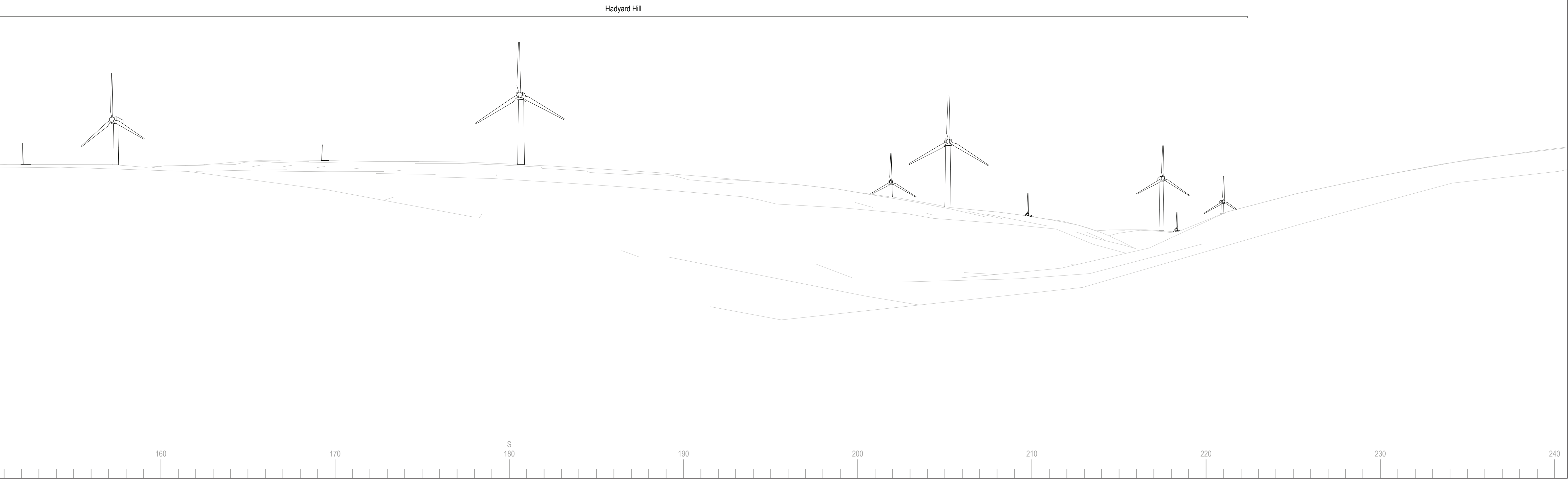


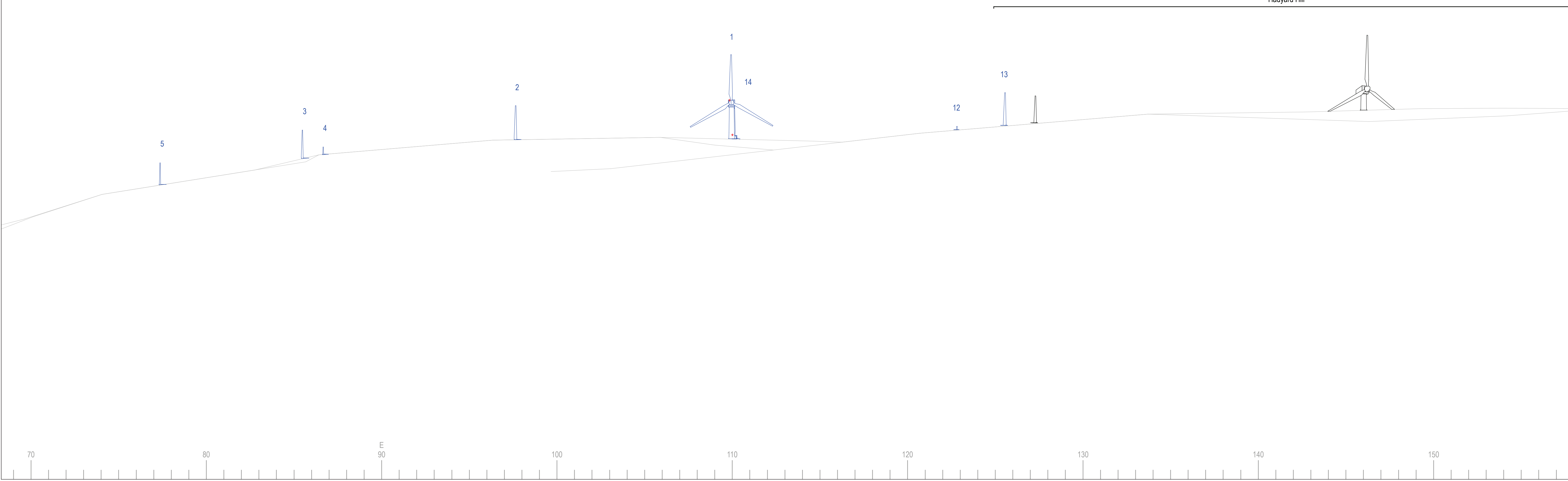




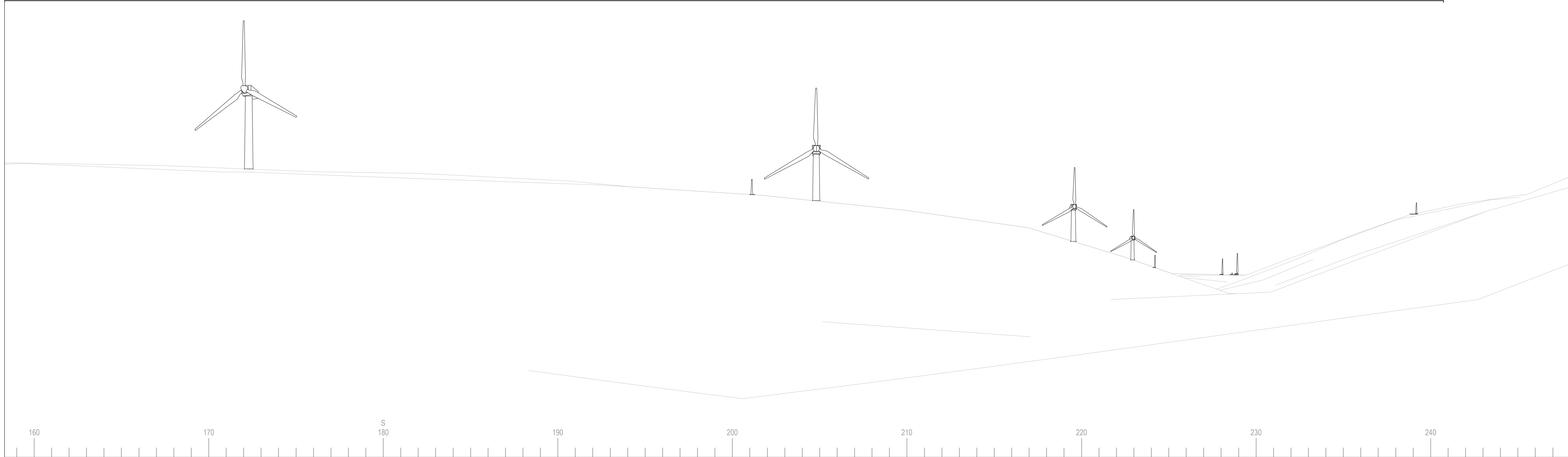




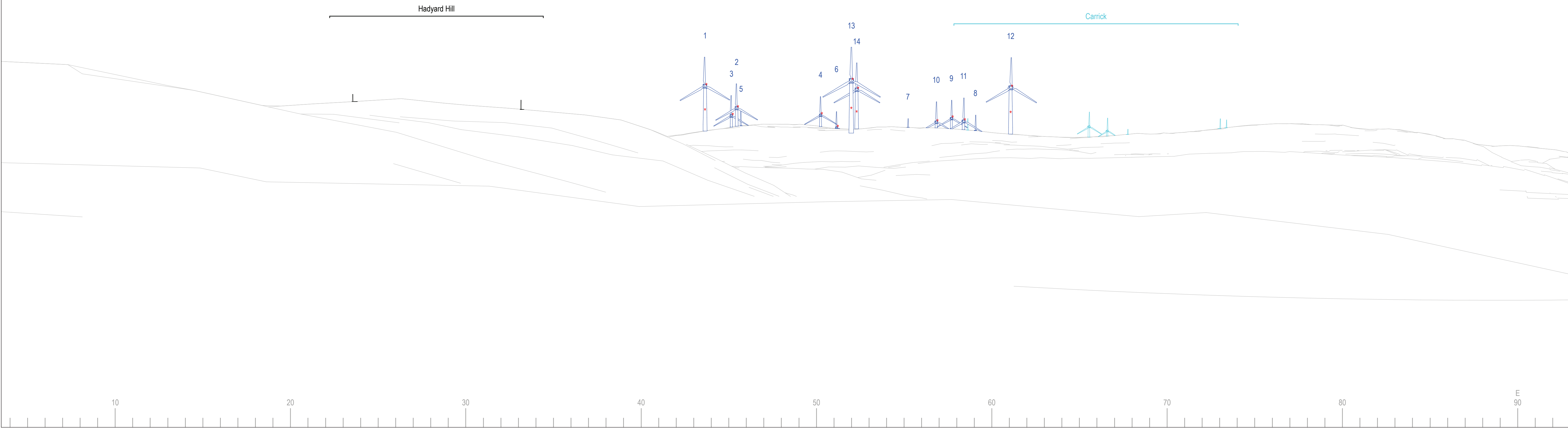


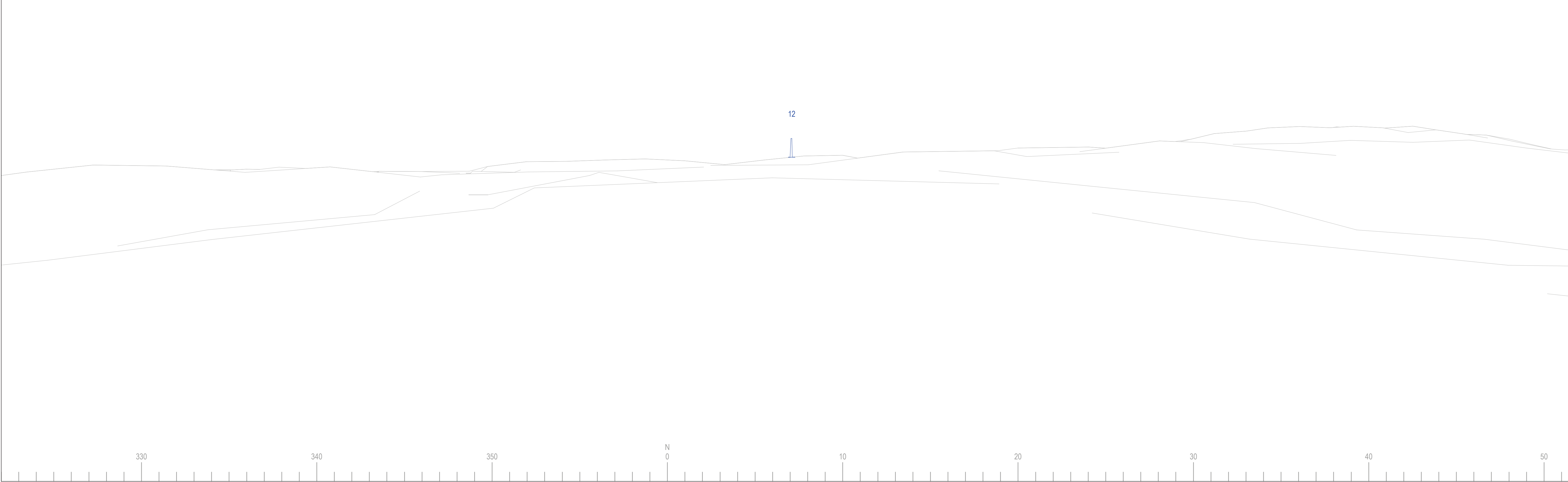


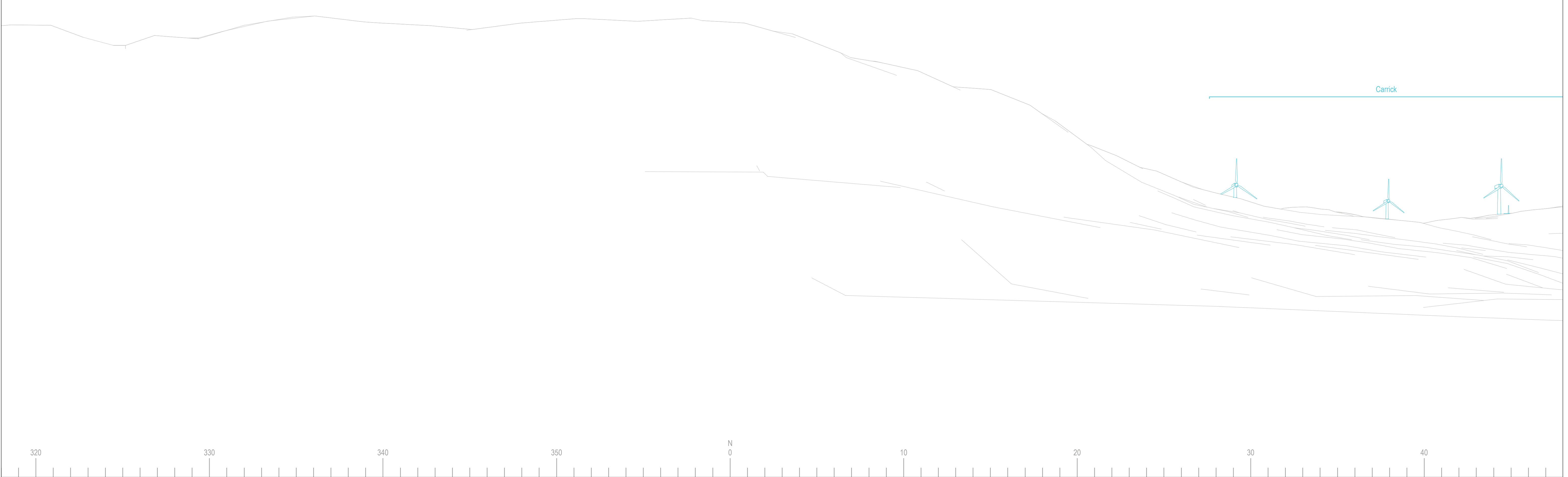
Hadyard Hill



Date Dec 2020 Image Size 820 x 260mm Paper Size 840 x 297mm	By SPB QA DT Rev -		Notes: 1) This visualisation is a planar projection panorama. View flat at a comfortable arm's length. 2) This data has been output directly from the wireline model. It ignores screening effects of woodland and other intervening objects. 3) All directions given as bearings relative to Grid North (BNG). 4) Location map scale: 1:25,000 Contains Ordnance Survey data © Crown copyright and database right 2020 © Crown copyright. All rights reserved. 2020 Licence number: 100020565	Viewpoint Information: Grid Reference: 229056E 599166N Ground Height: 191.61m AOD Direction of Centre of View: ³ 203.3° Horizontal Field of View: 90° Vertical Field of View: 18.2° Principal Distance: 812.5mm	Layout Information: Layout: craiginmoddie.wfl Hub Height: 122.5m Height to Blade Tip: 200m Nearest Visible Turbine: T1 @ 1643m Number of Sets of Tips Visible: ² 8 Number of Hubs Visible: ² 2	Wireline Key: - Craiginmoddie - Operational / Under Construction - Scoping - Hub Light (Craiginmoddie only) - Tower Light at half tower height (Craiginmoddie only)			Craiginmoddie Wind Farm P7 Delamford Cottage WIRELINE VISUALISATION 7b
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A. Technical Appendix 6.8: References

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