

Appendix 2.3: Stephenson Halliday response to NatureScot in relation to Merrick Wild Land Area

Craiginmoddie Wind Farm
ECU00002196

27 April 2021

Clarifications for NatureScot – Merrick Wild Land Area

Introduction

In their email of 26th April 2021, NatureScot have asked for the following:

- *a wireline from the area around Loch Girvan Eye in the far north east of the WLA –.*
- *we are looking for viewpoint location between Craigmasheen and Loch Girvan Eye and also indicating relevant operational and consented developments.*

“We believe that this is an area of high relative wildness where it seems, under closer examination of the ZTVs, that a number of turbine hubs might be visible and the existing wild land assessment produced to date does not provide suitable detail for our assessment purposes.

This detail is needed to clarify an issue with visibility in the far north east of the WLA which we believe is an important consideration in this application.”

Information Provided

A hub height aviation lighting ZTV was included as Figure 6.12 within the EIA Report and illustrates potential visibility across the Merrick WLA. In order to assist NatureScot’s assessment of the proposals, Figure 1 has been prepared which illustrates an enlarged section of the hub height aviation lighting ZTV covering just the northern part of the WLA, including Loch Girvan Eye and Craigmasheenie.

The zoomed in area of the ZTV shown illustrates that there would be no visibility of turbine hubs or aviation lighting from Loch Girvan Eye itself although a small number would become visible within approximately 10–30m from the eastern edge. Visibility of turbine hubs and lights would then gradually increase moving northeast up the western side of Craigmasheenie.

Wirelines have been prepared to show the increasing degree of potential visibility illustrated by the ZTV and are presented as Wirelines K–M in Appendix 1 of this document with locations illustrated on Figure 1. Views from these locations are discussed below:

Wireline K: Merrick WLA – Loch Girvan Eye

10.6km southeast, 476m AOD

This viewpoint is located just to the east of the loch and illustrates that at this lower elevation views are generally contained by nearby landform. However, there is a long distance channelled view to the northwest, looking out across lower lying landscapes of the Girvan valley and coastal margins, and extending as far as the distinctive landform of the Arran Hills. Three or four turbine hubs and further blade tips of the proposed development would appear along the skyline to the northwest. No other existing or consented turbines are visible from here although views of some distant settlement are possible in the channelled view northwest.

If Carrick (scoping) were consented then these turbines and their visible aviation lighting would be openly visible at around 5.7km, to the right of Craiginmoddie, seen in front of the distant landform of Arran.

Wireline L: Merrick WLA – Craigmasheenie (western slopes)

10.5km southeast, 488m AOD

This viewpoint is located on the lower western slope of Craigmasheenie, only slightly more elevated than Additional Wireline K. It illustrates that the modest increase in elevation results in a notably increased degree of outward visibility from the WLA. The view looks out along the upper Girvan valley that draws the eye out towards the lower lying settled areas of the lower Girvan valley and extending across to the coast, and Arran beyond, in the northwest. The western half of the operational Dersalloch wind farm is openly visible from here at around 10.5km north and other modern artefacts, including masts and settlement lighting, would also be distantly visible to the northwest.

The proposed development would also be more openly visible from this location with hubs of all except one of the turbines visible on or just above the skyline and in front of the more distant consented turbines at Kirk Hill. If Carrick were consented then Craiginmoddie would be seen extending away beyond this closer and more openly visible scheme.

Wireline M: Merrick WLA – Craigmasheenie (summit)

10.6km southeast, 539m AOD

This viewpoint is located at the summit of Craigmasheenie and offers an open, panoramic view to the northwest round to the southeast. It offers a very similar view to that from Cornish Hill, included as viewpoint 9 within the EIA Report. It offers views of relatively extensive operational and consented development across a wide field of view.

The proposed development would be seen in relatively open view, just beyond low hills at the head of the Stinchar valley, extending the existing cluster of Hadyard Hill, Assel Valley and Tralorg east towards the viewpoint. If Carrick were consented then Craiginmoddie would appear to sit in a gap between this and the currently operational cluster.

Impacts on Wildness Qualities

The Wild Land Assessment included within Technical Appendix 6.5 of the EIA Report considered relative wildness, as mapped at a national scale, and also the key attributes and qualities of the WLA as published by NatureScot in the 2017 Merrick WLA description.

As illustrated by the maps (Inset 2 – 5) included within Technical Appendix 6.5, the only aspect of relative wildness that appears notably increased in this north eastern area of the WLA is Absence of Modern Artefacts. The area of increased relative wildness is primarily confined to the northern side of Craighasheenie, where the proposed development would not be visible, and in a narrow band to the east of this hill. The eastern extent of this band is defined by the eastern edge of Loch Girvan Eye but does not overlap with the hub height ZTV for the proposed development or as far as the location of Wireline K.

The result of the increased relative wildness in respect of Absence of Modern Artefacts is that there is a slight increase in the overall composite wildness for the same area (see Inset 1 of Technical Appendix 6.5). However, it is only slightly increased compared to surrounding areas and less than that of the core areas of the WLA to the east and southeast of Merrick and it does not notably overlap with either the hub or tip height ZTVs for the proposed development.

Conclusion

The information here provides further clarification of the effects identified in the EIA Report. It does not identify any fundamentally new effects or areas that may be affected by the proposed development that weren't considered as part of the Wild Land Assessment contained within the EIA Report. It gives further support to the conclusion that overall effects on the WLA would be Moderate/Minor significance and Adverse due to the slightly increased presence of manmade structures seen from elevated locations within the north western part of the WLA – this includes the entire finger or spur of the area that sits to the north of Tarfessock and Shalloch on Minnoch.

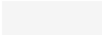
There would be no 'material change in the experience of any of the wild land qualities' and these effects would not be significant.

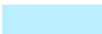
CRAIGINMODDIE WIND FARM

FIGURE 1

Zone of Theoretical Visibility -
Visible Aviation Lighting

KEY

-  Viewpoints
-  Woodland (modelled at 15m)
-  Merrick Wild Land Area
- Zone of Theoretical Visibility to Hub Height (122.5m)

 1 - 4 nacelles may be visible

 5 - 10 nacelles may be visible

 11 - 14 nacelles may be visible

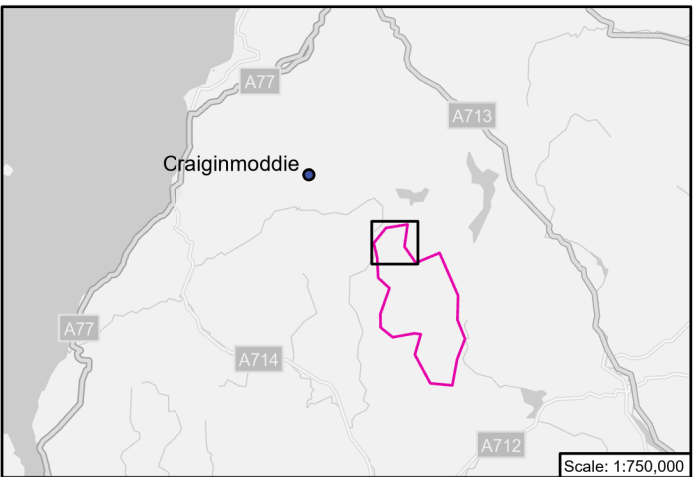


FIGURE DATA:

This figure has been based on the following data:

Layout file: obvs-HH-T5-20km.shp
Terrain data: T5-DSM-screening.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m

NOTES:

This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

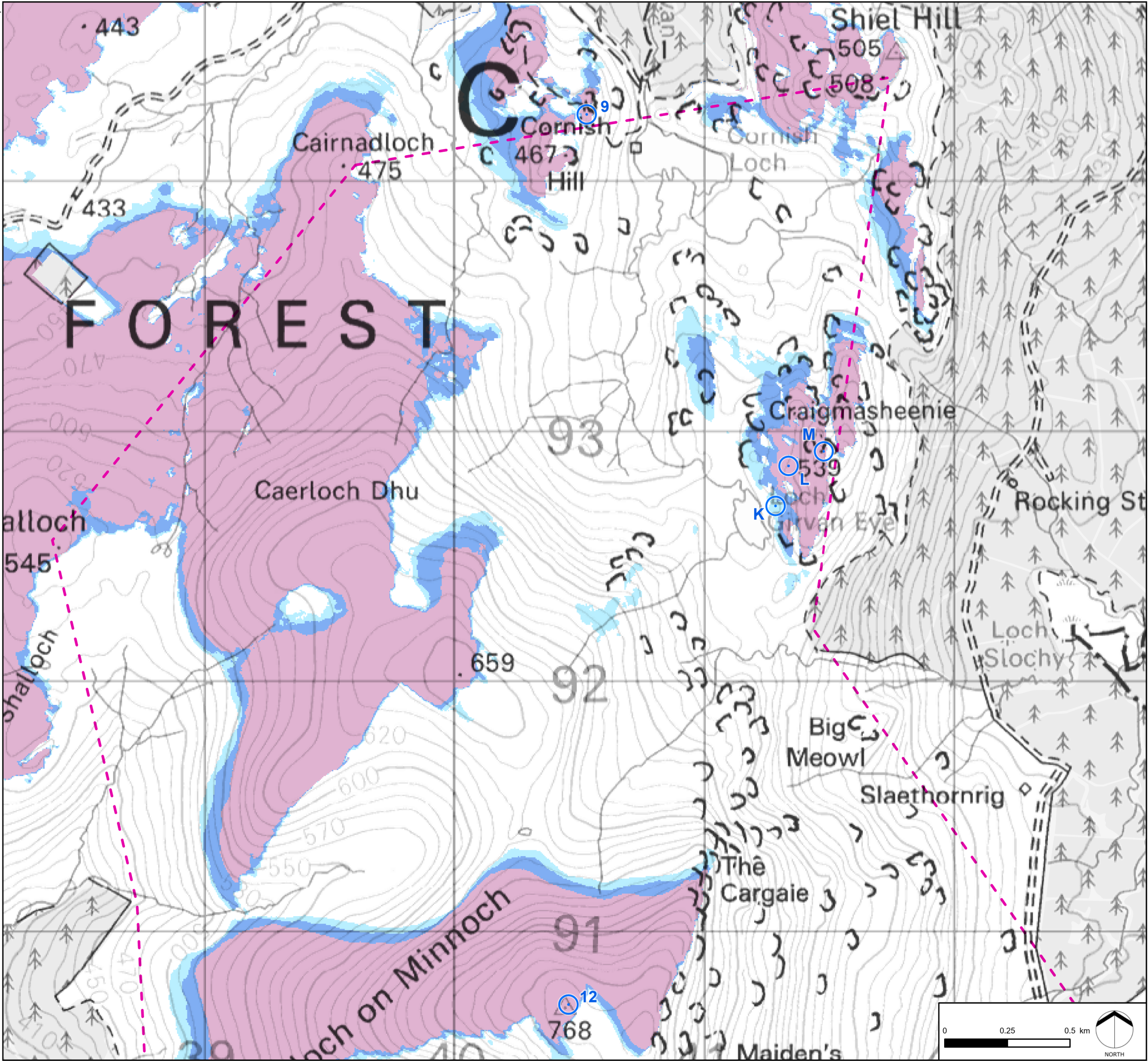
A digital surface model (DSM) has been derived from OS Terrain 5 height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

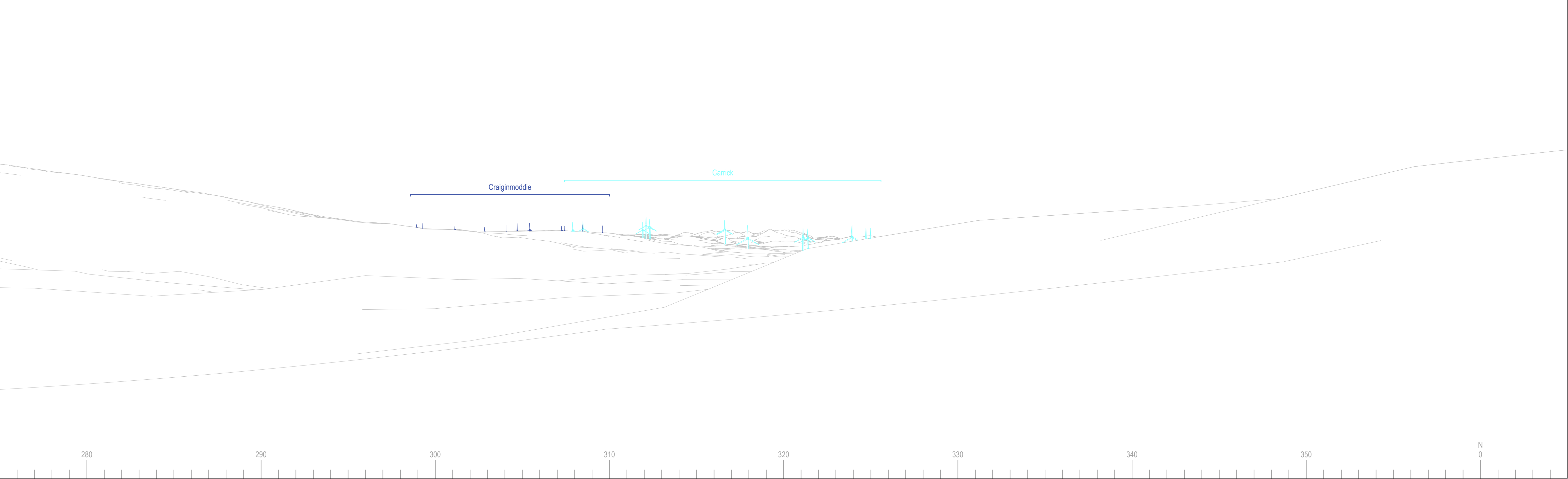
The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 5m² resolution.

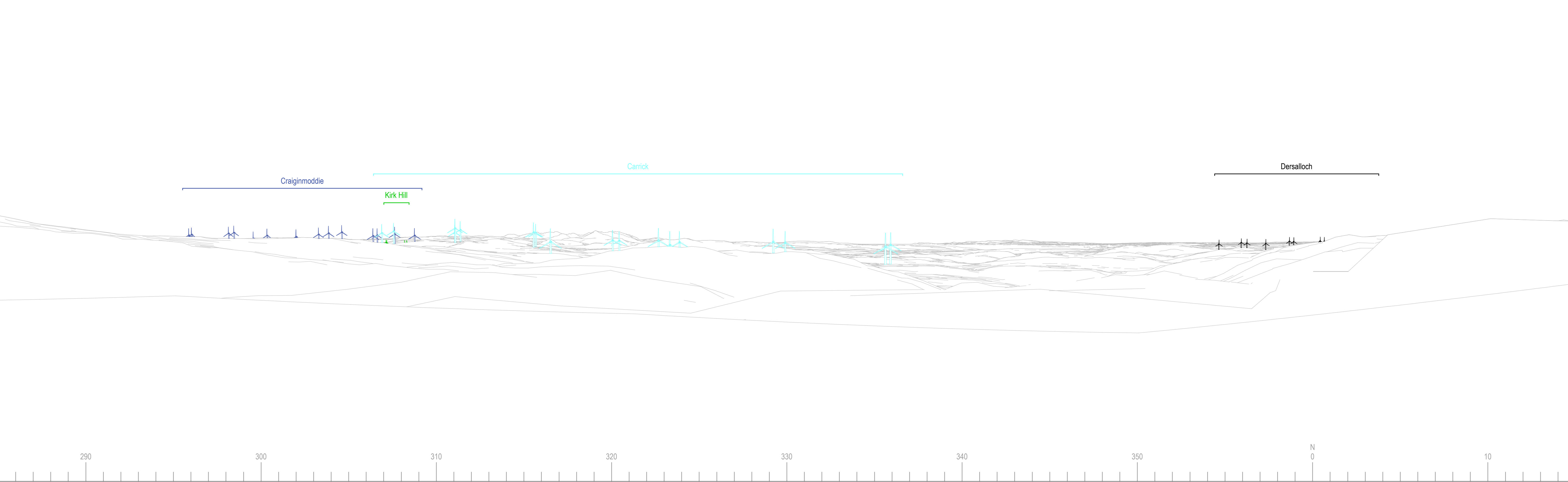
Projected Coordinate System: British National Grid

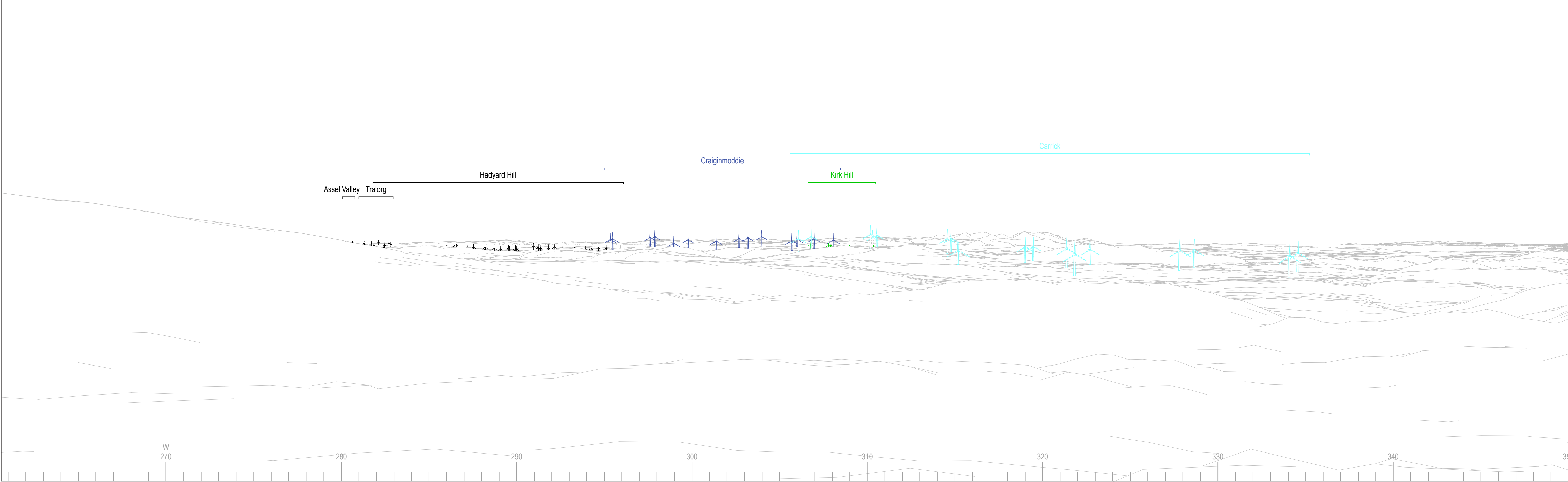
DATE	BY	PAPER	SCALE	QA	REV
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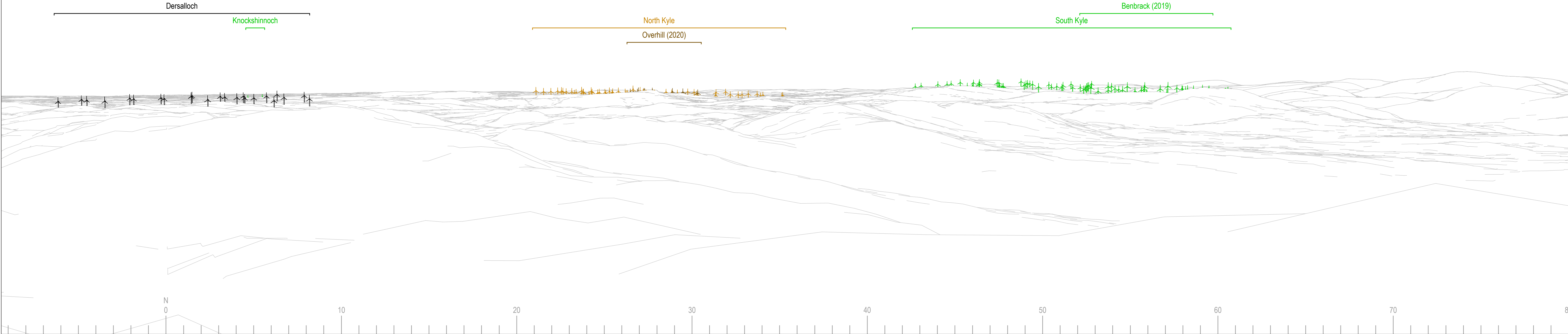


Appendix 1 – Wirelines K-M









Date April 2021	By DT		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 ME							
Paper Size 840 x 297mm	Rev -							
CRE-010G-Additional-Wires-Craighasheenie.indd								
Viewpoint Information: Grid Reference: 241474E 592918N Ground Height: 539m AOD Direction of Centre of View: ³ 35.6° Horizontal Field of View: 53.6° 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: T8 @ 10614m Number of Sets of Tips Visible: ² 14 Number of Hubs Visible: ² 14			Wireline Key: Craiginmoddie Operational / Under Construction Consented Proposal (each proposal is coloured individually) Scoping		

