



# BLOCH WIND FARM

## FIGURE 5.13

### ZONE OF THEORETICAL VISIBILITY (ZTV) STUDY - 2000 CANDELA NACELLE LIGHT VISIBILITY

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- Proposed Turbines with Nacelle Lighting
- Proposed Turbines without Lighting
- Site Boundary
- Distance from Proposed Turbines (5, 10, 15km)
- Viewpoints

- VP1 - High Stennies
- VP2 - Minor road near Barnegleshead
- VP3 - Collin Burn
- VP4 - Milltown
- VP5 - Calfield
- VP6 - B6318 north-west of Claygate
- VP7 - Langholm Bridge
- VP8 - Malcolm Monument, Langholm
- VP9 - Longtown
- VP10 - Burnswark Hill Fort
- VP11 - A7 near Unthank
- VP12 - Gowans-on-Solway
- VP13 - Caerlaverock Castle
- VP14 - Banks, Hadrian's Wall
- VP15 - Gretna Green/Springfield
- VP16 - Kirkpatrick-Fleming
- VP17 - Repentance Tower, Hoddam

Note: Viewpoints 12-14 lie outwith the study area for night time effects.

#### Zone of Theoretical Visibility (ZTV) - Nacelle Lights

- 1 - 5 Nacelle Lights
- 6 - 10 Nacelle Lights
- 11 - 14 Nacelle Lights

This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 terrain data and has a 25m<sup>2</sup>



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SCALE - 1:60,000 @ A1

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