



**Legend**

- Proposed Earraghail Wind Turbines
- Distance Radii from Outermost Turbine (15, 30, 45km)
- Viewpoints
- Illustrative Wirelines
- North Arran Wild Land Area
- Woodland (modelled at 10m)

**Zone of Theoretical Visibility (nacelle light height 102.5m, tower light height 51.25m)**

- 8-13 nacelle lights and 8-13 tower lights
- 8-13 nacelle lights and 1-7 tower lights
- 1-7 nacelle lights and 1-7 tower lights
- 8-13 nacelle lights and 0 tower lights
- 1-7 nacelle lights and 0 tower lights

**FIGURE DATA:**  
 This figure has been based on the following data:  
 Layout file: EAR\_obsvHubHeightT5\_M\_P\_231221.shp, EAR\_obsvHubHeightT50\_MP\_231221.shp,  
 EAR\_obsvTowerT5\_MP\_231221.shp, EAR\_obsvTowerT50\_MP\_231221.shp  
 Terrain data: EAR\_T5\_DSM\_felling\_MP\_070122.asc, EAR\_T50\_DTM\_MP\_160320.asc  
 Viewer's eye height: 2m above ground level  
 Calculation grid size: 5m (to 10km from outermost turbine), 50m beyond

**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 5/50 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 7m and woodland an assumed height of 10m, 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 5m<sup>2</sup> (to 10km from outermost turbine)/50m<sup>2</sup> (beyond) resolution.

Rev	Date	By	Comment

1:165,000  
 Scale @ A1

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**Earraghail Renewable Energy Development**  
 Landscape and Visual  
 Figure 7.12: Aviation Lighting ZTV with Screening

Drg No	EAR-SH-I-112
Rev	
Date	10/02/22
Figure	7.12
Datum	OSGB36
Projection	TM