



Note

This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 5 dataset (+/-2 m) up to 40 km from turbine locations, and OS Terrain 50 dataset (+/-10 m). Earth curvature has been included in the ZTV calculation and refraction of light has been applied using SNH guidance settings. The ZTV has been generated from a viewing height of 2 m above ground level which falls within recommendations by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) February 2017 - Version 2.2.

The use of ZTV mapping at this stage is limited and the following assumptions should be noted:

- The ZTV has been generated using the proposed Design Freeze turbine locations for Eucharhead.
- The proposed turbine nacelle and tower lights heights of 155 m and 77.5 m respectively have been used for generating the ZTV.
- The ZTV accounts for the screening effect of settlements and woodland blocks using a height value of 8 m for buildings and 10 m for woodland. The ZTV does not account for the localised screening effects of vegetation (i.e. hedgerows, individual trees, small tree groups or scrub). It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of informing 'on the ground' visual assessment.
- The ZTV has been generated up to 65 km from the proposed Eucharhead turbines.



Rev	Date	By	Comment
A	24/09/20	AA	First Issue.

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Scale @ A0

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Eucharhead Renewable Energy Development EIAR
Landscape and Visual Amenity
ZTV for Aviation Lighting with Screening - Nacelle Lights and Tower Lights (at half height)

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Figure	7.13	