



LEGEND

- Application Boundary
- Proposed Turbine Location
- Proposed Turbine Location 5 km and 10 km Buffers

Zone of Theoretical Visibility Bare Earth Scenario (149.9 m Tip Height)

- 9 Turbines Visible
- 1 Turbine Visible

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 50 dataset (4m Root Mean Square Error [RMSE]) up to 45 km from turbine locations. 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 2m 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 turbine locations for Ben Sca Redesign Wind Farm.
 - The proposed turbine tip heights of 149.9 m have been used for generating the ZTV.
 - The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as settlements and woodland. 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.

BEN SCA WIND FARM LTD



BEN SCA REDESIGN WIND FARM - EIA
SOCIO-ECONOMIC AND LAND USE
ZONE OF THEORETICAL VISIBILITY

FIGURE 8.1

Scale: 1:85,000 @ A3 Date: JANUARY 2024

405.064982.00001.0107.0 8.1 Zone of Theoretical Visibility