



LEGEND

Application Boundary

Proposed Turbine

Proposed Turbines 5 km - 40 km Buffers

Landscape Viewpoint

Zone of Theoretical Visibility: Bare

Minimum of One Hub (and Blade Tip) Visible (83.4 m)

Minimum of One Blade Tip Visible (149.9 m)

**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 (1.5 - 2.5m Root Mean Square Error [RMSE]) up to 15km from turbine locations, and OS Terrain 50 dataset (4m RMSE). 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 Kirkton Energy Park.
- The proposed turbine blade tip heights of 149.9m and hub heights of 83.4m 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.

KIRKTON WIND FARM LTD

SLR

4/5 LOCHSIDE VIEW  
EDINBURGH PARK  
EDINBURGH  
EH12 9DH  
T: +44 (0)131 335 6830  
www.slrconsulting.com

KIRKTON ENERGY PARK

SEI

BLADE TIP & HUB HEIGHT ZTV

SEI FIGURE 7.2a

Scale 1:350,000 @ A3

Date SEPTEMBER 2023

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