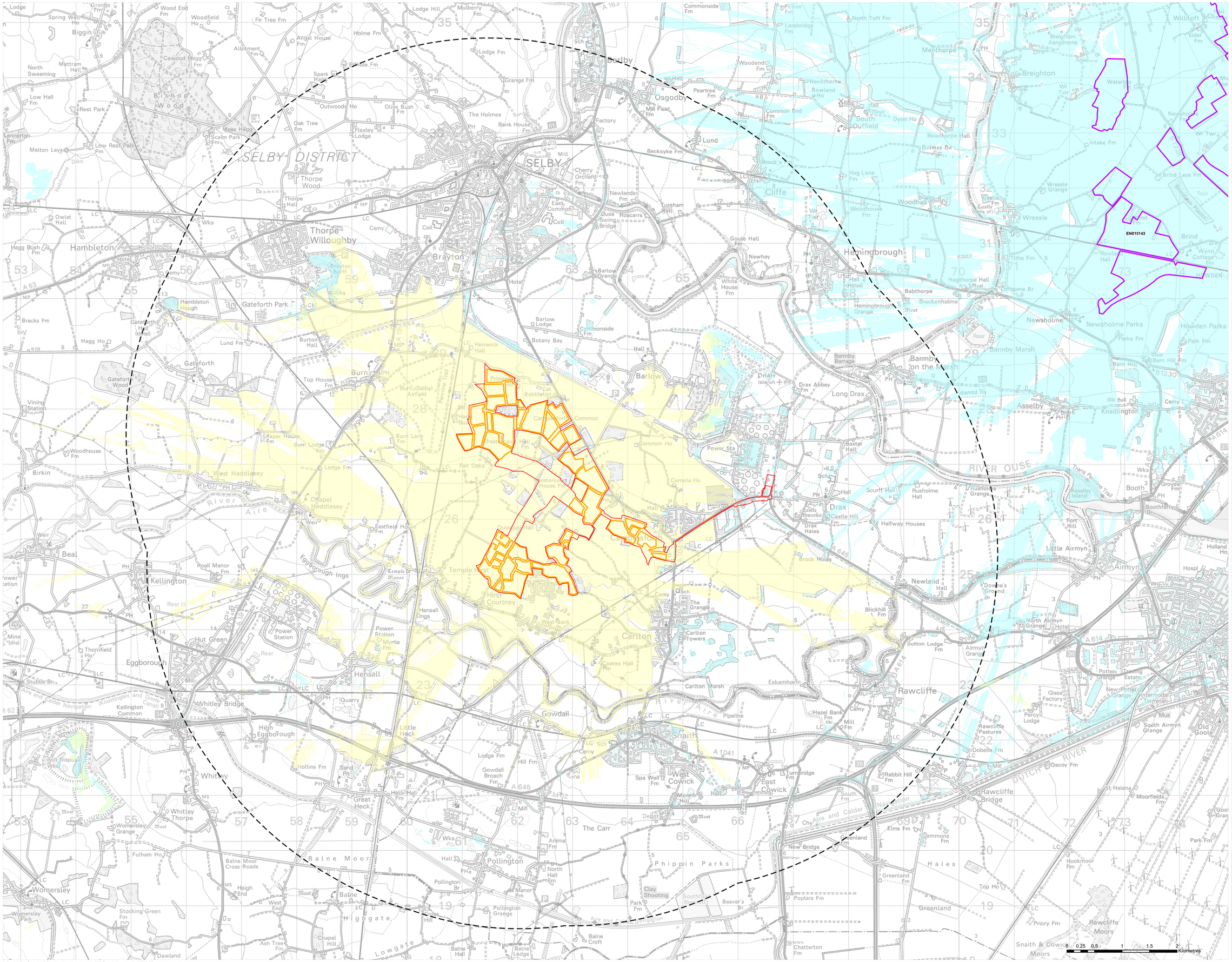
HELIOS RENEWABLE ENERGY PROJECT

PINS Document Number:
EN010140/APP/6.2.7.14.2

Pursuant to:
APFP Regulation 5(2)(a)

Environmental Statement Figure 7.14.2: Cumulative ZTV, Proposed Development and East Yorkshire Solar Farm – With Surface Features

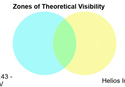
June 2024



Key

- Site Boundary
- Helios Infrastructure
- Solar Panel Area 6 km Buffer
- Cumulative Development - Solar PV (Ref: EN010143)

Zones of Theoretical Visibility



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 with an accuracy of (+/- 1.5 - 2.5 m Root Mean Square Error [RMSE]) and OS Terrain 50 dataset with and accuracy of (+/- 4 m RMSE). Earth curvature has been included in the ZTV calculation and refraction of light has been applied using ESRI default 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 NatureScott February 2017 - Version 2.2.

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

- The Helios ZTV has been generated using a 50 m grid of the maximum developable area of the Proposed Helios Solar Farm BESS, Substation and Solar Panel areas.
- A height of 6.48 m for BESS and Substation Infrastructure and 3 m for Solar Panels has been used for generating the ZTV.
- The EN010143 ZTV has been generated using a 50 m grid of the maximum developable area of the Solar PV.
- A height of 3.5 m for the Solar PV has been used for generating the ZTV.
- The ZTV accounts for the screening effects of settlements and woodland blocks using a height value of 8 m for buildings and 10 m for 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.
- A height of 6.48 m for BESS and Substation Infrastructure and 3 m for Solar Panels has been used for generating the ZTV.

N W E S

0 0.25 0.5 1 1.5 2 Kilometres

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Project Title

Helios Renewable Energy Project

Drawing Title

7.14.2 – Cumulative ZTV, Proposed Development and East Yorkshire Solar Farm - With Surface Features

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JK	JRS

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