



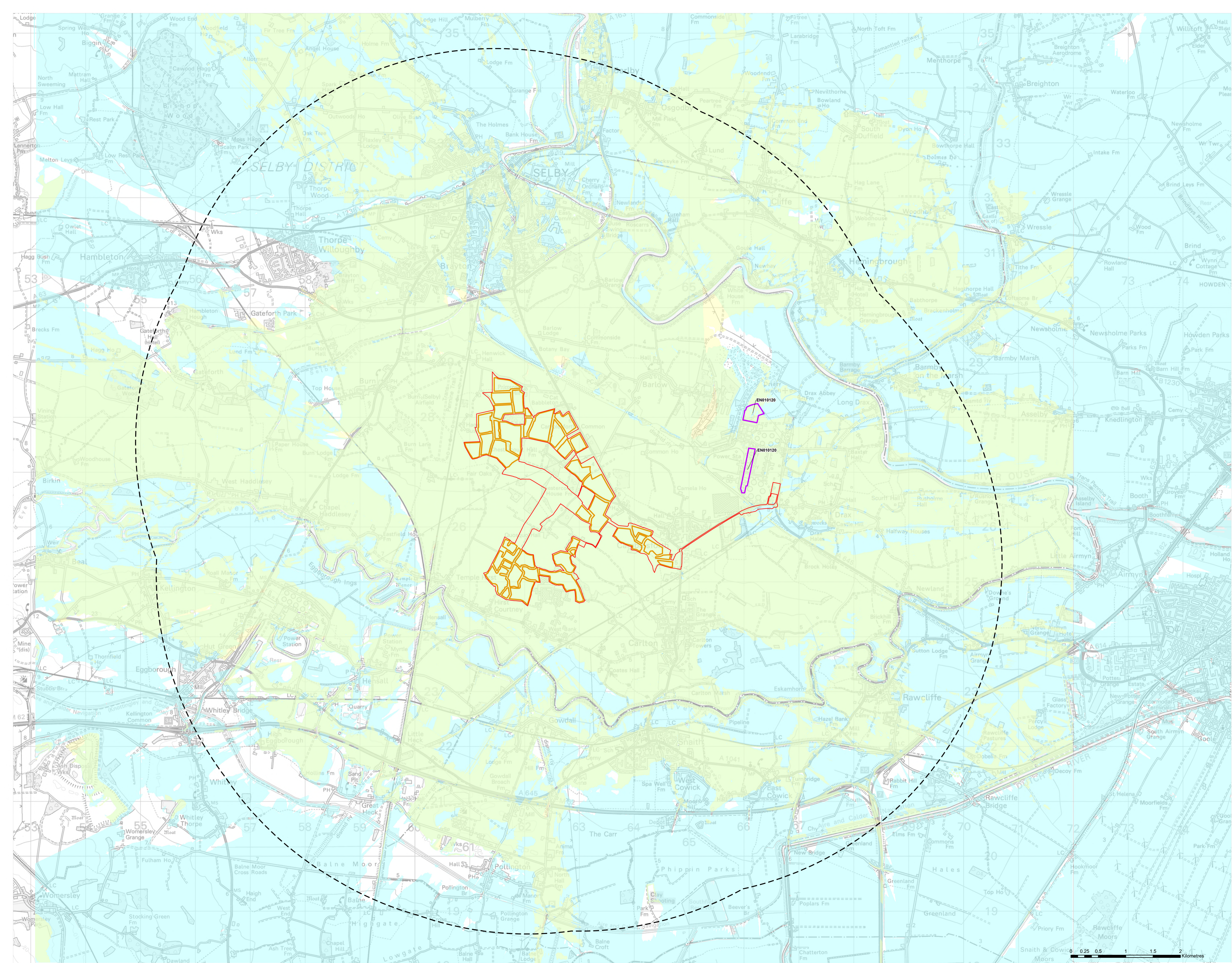
HELIOS RENEWABLE
ENERGY
PROJECT

PINS Document Number:
EN010140/APP/6.2.7.15.1

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

**Environmental Statement Figure 7.15.1:
Cumulative ZTV, Proposed Development
and Drax Bioenergy with Carbon Capture
and Storage – Bare Earth**

June 2024



Key

- Site Boundary
- Helios Infrastructure
- Solar Panel Area 6 km Buffer
- Cumulative Development - Absorber Columns and Cooling Towers (Ref: EN010120)

Zones of Theoretical Visibility

- EN010120 - Absorber Columns and Cooling Towers
- Helios Infrastructure

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 an 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 NatureScot 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 EN010120 ZTV has been generated using a 50 m grid of the maximum developable area of the Absorber Columns and Cooling Towers.
- A height of 90 m for the Absorber Columns and 20 m for the Cooling Tower has 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.
- The Helios ZTV has been run to an area extending just beyond the solar panel area 6 km Buffer.

North arrow pointing up.

Project Title: Helios Renewable Energy Project

Drawing Title: 7.15.1 - Cumulative ZTV, Proposed Development and Drax Bioenergy with Carbon Capture and Storage - Bare Earth

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Drawn by:	JK	Checked by:	JRS	Date:	14/06/2024

Scale: 1:30,000 @ A1

0 0.25 0.5 1 1.5 2 Kilometres