



**HELIOS** RENEWABLE  
ENERGY  
PROJECT

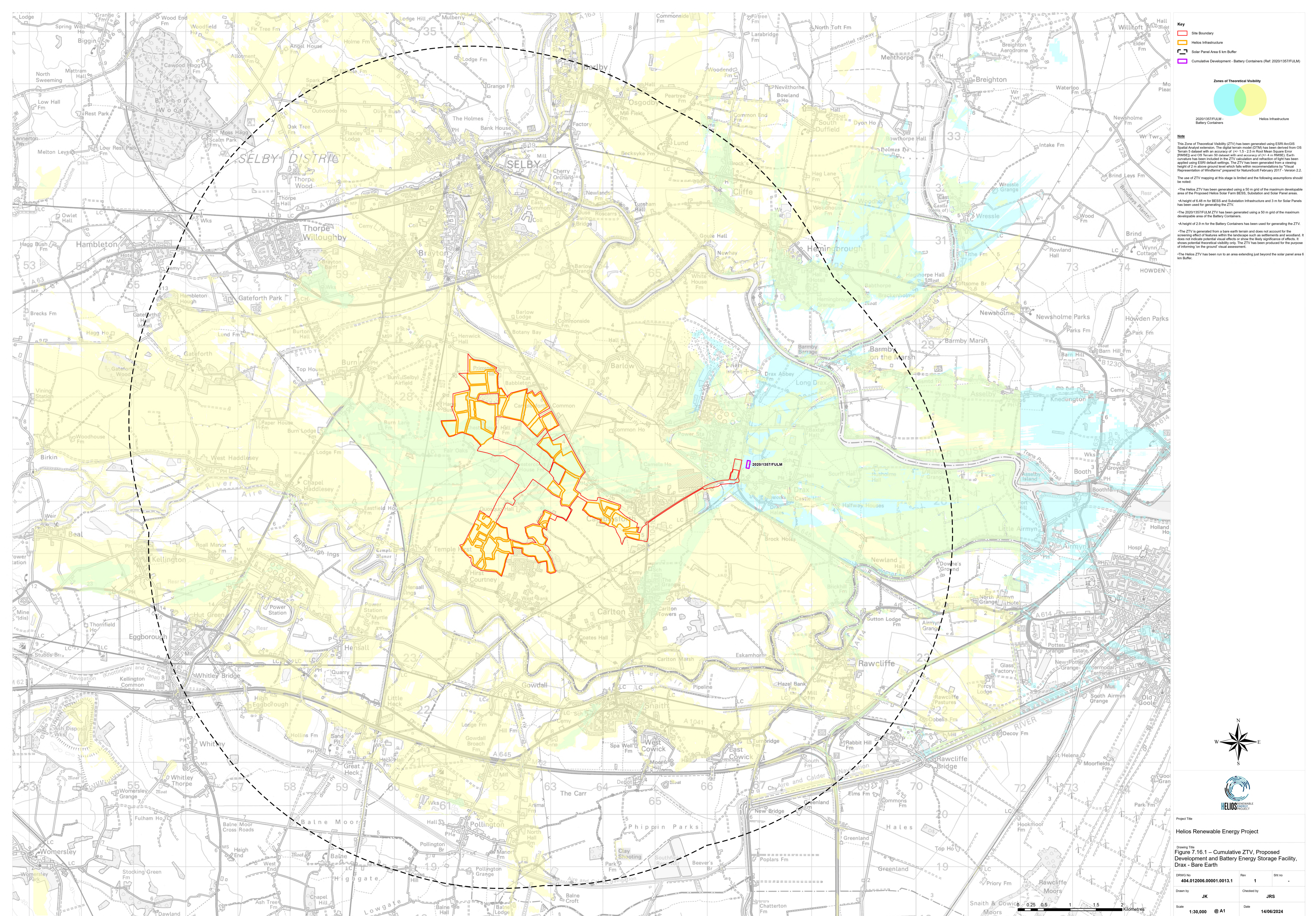
**PINS Document Number:**  
EN010140/APP/6.2.7.16.1

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

**Environmental Statement Figure 7.16.1:  
Cumulative ZTV, Proposed Development  
and Battery Energy Storage Facility, Drax  
- Bare Earth**

June 2024





**Key**

- Site Boundary
- Helios Infrastructure
- Solar Panel Area 6 km Buffer
- Cumulative Development - Battery Containers (Ref: 2020/1357/FULM)

**Zones of Theoretical Visibility**

2020/1357/FULM - Battery Containers

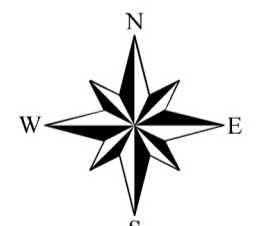
Helios Infrastructure

**Note**

The 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 2020/1357/FULM ZTV has been generated using a 50 m grid of the maximum developable area of the Battery Containers.
- A height of 2.9 m for the Battery Containers 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.



Project Title  
**Helios Renewable Energy Project**

Drawing Title  
**Figure 7.16.1 – Cumulative ZTV, Proposed Development and Battery Energy Storage Facility, Drax - Bare Earth**

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Drawn by JK	Checked by JRS	Date 14/06/2024
Scale 1:30,000 @ A1		