



- Proposed Development**
- Order Limits
 - Solar Areas
 - 400 kV Substation
 - BESS
 - Intermediate Substations
- Distance from Solar Arrays, Substations and BESS Area**
- Distance from Solar Arrays, Substations and BESS Area (0.5, 1, 2 km)
- Existing Landcover**
- Buildings
 - Woodland
 - Operational Solar Farms
 - Consented Solar Farms
- Zone of Theoretical Visibility (Solar Areas at 3.5m, may also have visibility of Substations at 7.5m)**
- Greater extent visible
 - Lesser extent visible
 - Theoretical Visibility of Substations Only
 - Theoretical Visibility of BESS at 4m and/or 400 kV Substation at 14m without solar areas
 - Theoretical Visibility of 400 kV Substation and/or BESS with Solar Areas
- Viewpoints**
- Photomontage
 - Wireline
 - PEIR viewpoints omitted from ES

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

A digital surface model (DSM) has been derived from 10m Composite LiDAR DTM height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 10m² resolution.

1:31,000 Scale @ A1
0 0.5 1 2 km
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**ZTV Study
Figure 7.1**

**Great North Road Solar and
Biodiversity Park
Environmental Statement**