

**Tillbridge Solar Project
EN010142**

**Volume 6
Environmental Statement
Figure 12-4A-H: Zones of Theoretical Visibility
Document Reference: EN010142/APP/6.3**

**Regulation 5(2)(a)
Infrastructure Planning (Applications: Prescribed Forms and
Procedure) Regulations 2009**

**April 2024
Revision Number: 00**

tillbridgesolar.com

- Order limits
- Principal Site - 5km Buffer
- Indicative Solar Panel Boundary

Zone of Theoretical Visibility - Degree of Maximum Visibility of the Solar Panel Area

- Not Visible
- 1- 25%
- 25 - 50%
- 50 - 75%
- 75 - 100%

NOTES

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1. The Zone of Theoretical Visibility (ZTV) is based upon points along the external boundary to the indicative solar panel area with an anticipated panel height of 3.5m and an observer height of 1.5m. It does not reflect all theoretical visibility arising from panels located within the external solar panel boundary.
2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution.
3. The ZTV has been produced in order to inform 'on the ground' visual assessment and is based on a 'bare earth' model that does not include effects of screening derived from buildings or vegetation.
4. ZTV calculated using ArcGIS 10.8.1 Viewshed tool.
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ISSUE PURPOSE

DCO Submission

PROJECT NUMBER

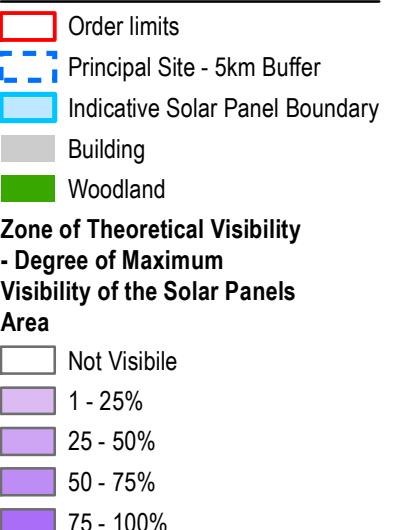
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FIGURE TITLE

Zone of Theoretical Visibility - Panels Bare Earth

FIGURE NUMBER

Figure 12-4a



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1. The Zone of Theoretical Visibility (ZTV) is based upon points along the external boundary to the indicative solar panel area with an anticipated panel height of 3.5m and an observer height of 1.5m. It does not reflect all theoretical visibility arising from panels located within the external solar panel boundary.

2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution. To provide evidence of theoretical screening, two additional databases have been included: OS Open Data with assumed height for buildings of 8m; and the Forestry Commission National Forestry Inventory (2021) and OS Open Data, with an assumed height of 11m.

3. The ZTV has been produced in order to inform 'on the ground' visual assessment and does not include effects of screening derived from hedgerows or trees not included within the woodland database noted above.

4. ZTV calculated using ArcGIS 10.8.1 Viewshed tool.

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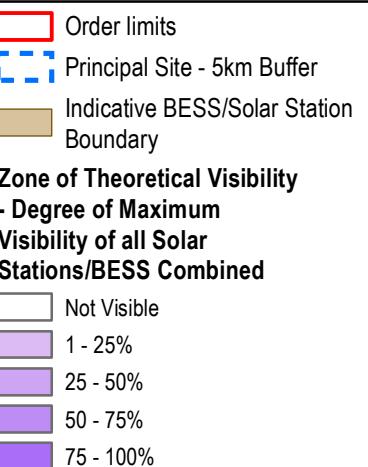
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FIGURE TITLE

Zone of Theoretical Visibility - Solar Panels with Buildings and Woodland Screening

FIGURE NUMBER

Figure 12-4b



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1. The Zone of Theoretical Visibility (ZTV) is based on points along the solar station/battery storage boundaries with an anticipated height of 4m and an observer height of 1.5m.
2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution.
3. The ZTV has been produced in order to inform 'on the ground' visual assessment and is based on a 'bare earth' model that does not include effects of screening derived from buildings or vegetation.
4. ZTV calculated using ArcGIS 10.8.1 Viewshed tool.
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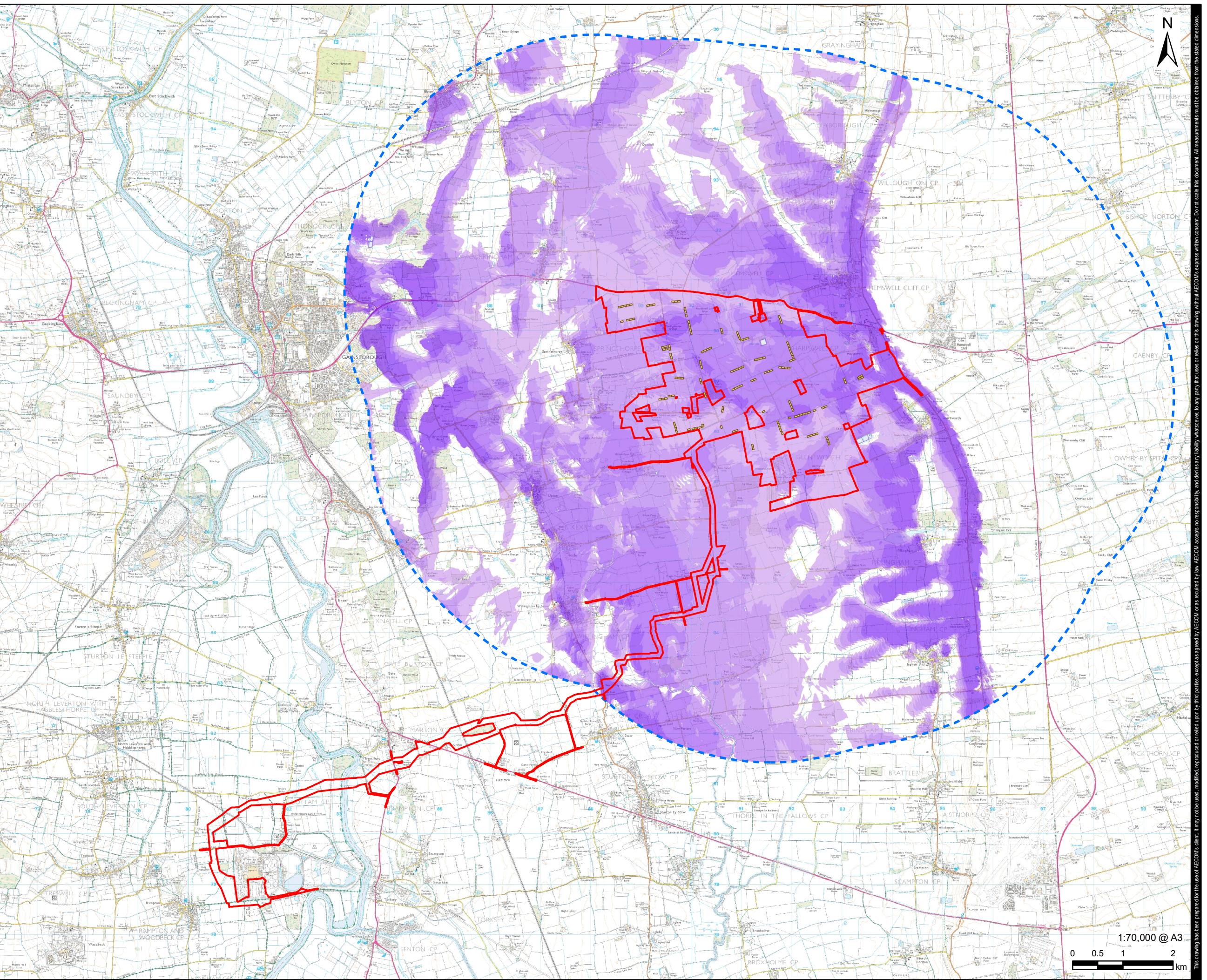
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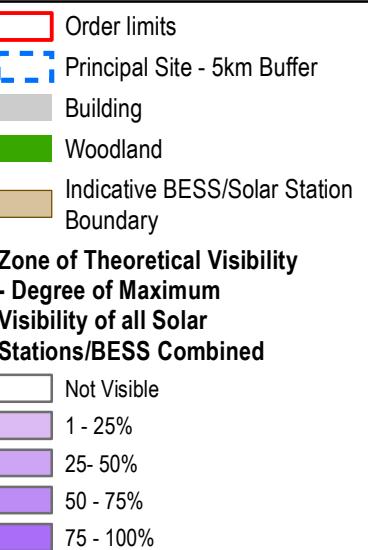
FIGURE TITLE

Zone of Theoretical Visibility - Solar Stations and Battery Storage (BESS) - Bare Earth

FIGURE NUMBER

Figure 12-4c





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1. The Zone of Theoretical Visibility (ZTV) is based on points along the solar station/battery storage boundaries with an anticipated height of 4m and an observer height of 1.5m.

2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution. To provide evidence of theoretical screening, two additional databases have been included: OS Open Data with assumed height for buildings of 8m; and the Forestry Commission National Forestry Inventory (2021) and OS Open Data, with an assumed height of 11m.

3. The ZTV has been produced in order to inform 'on the ground' visual assessment and does not include effects of screening derived from hedgerows or trees not included within the woodland database noted above.

4. ZTV calculated using ArcGIS 10.8.1 Viewshed tool.

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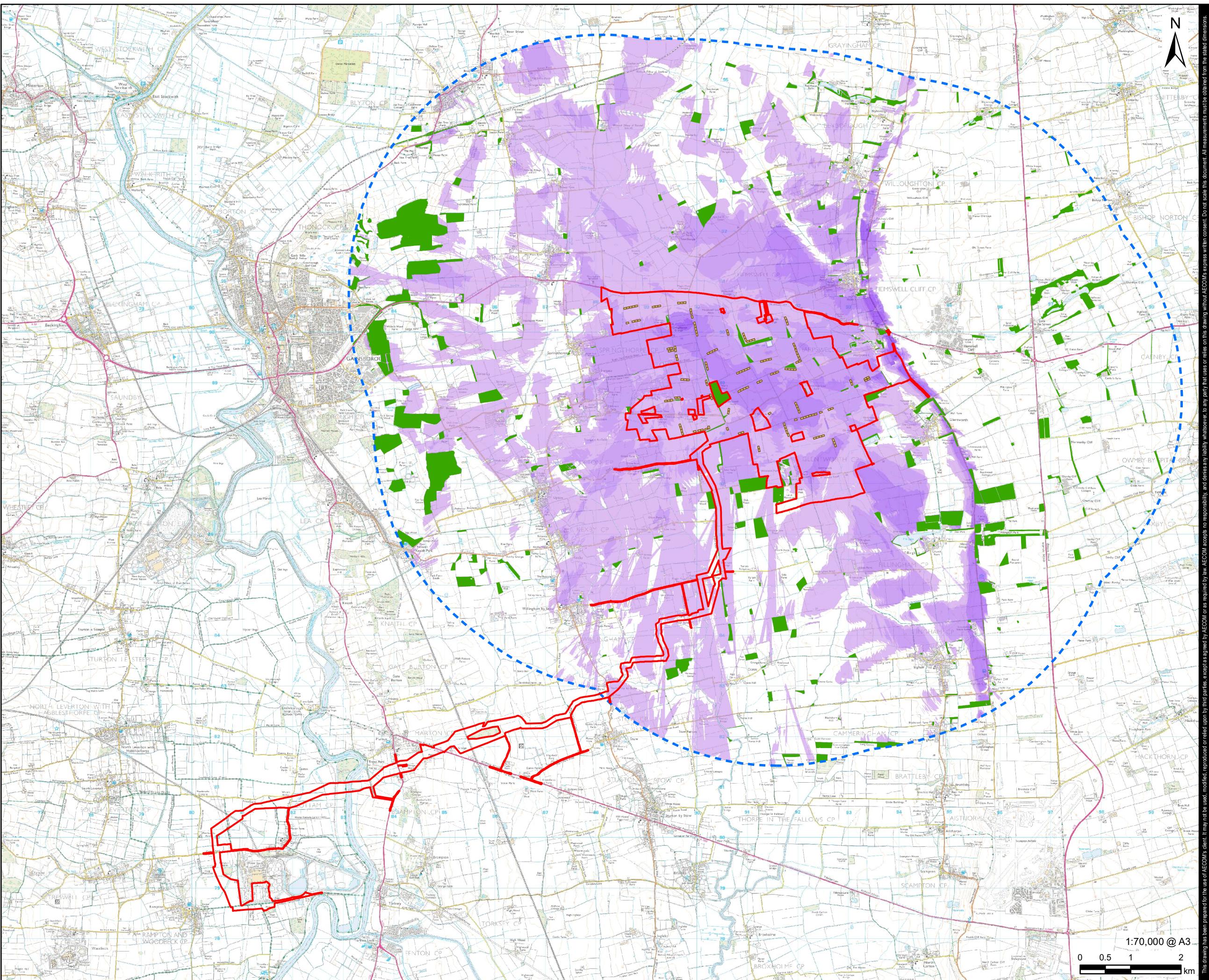
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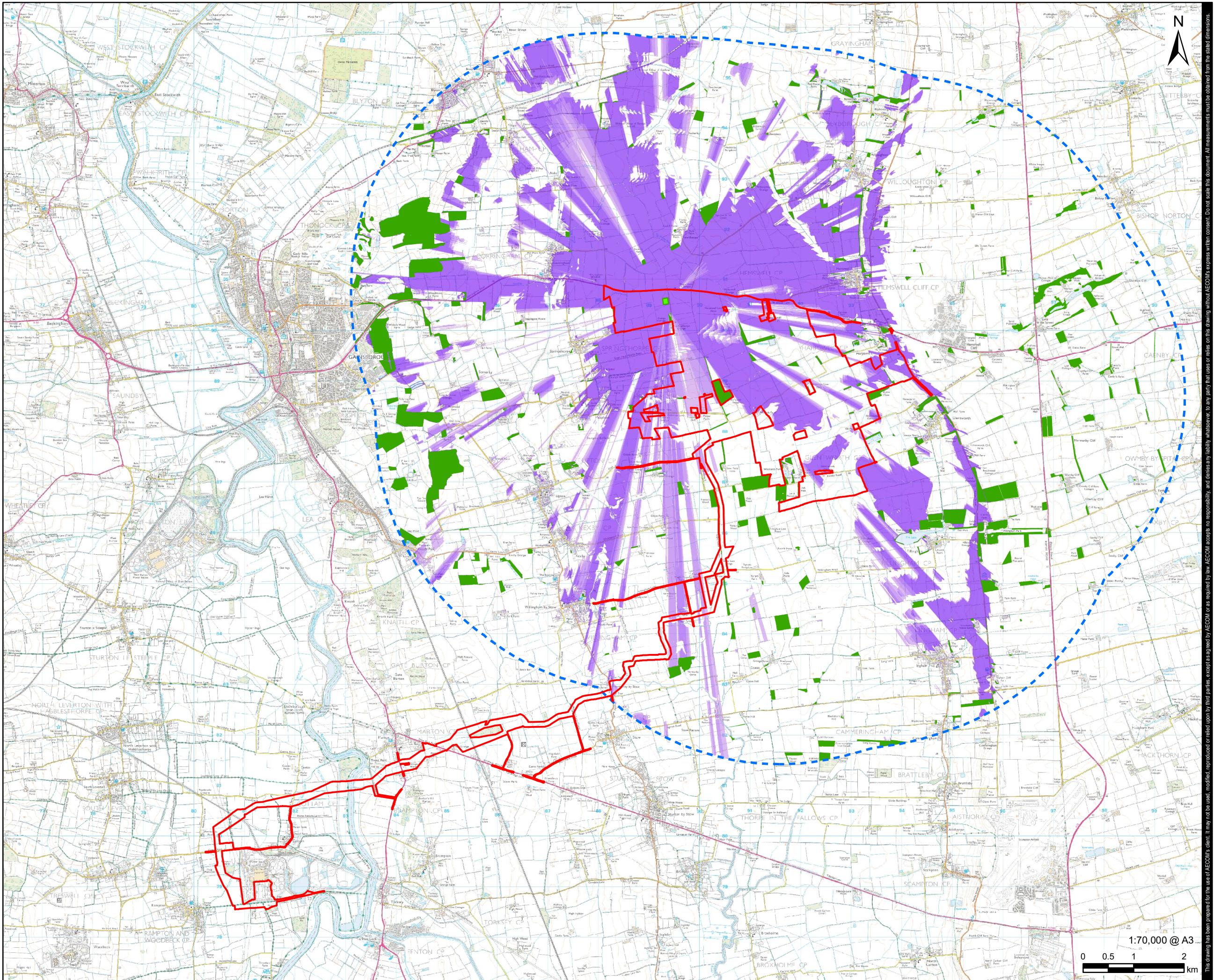
FIGURE TITLE

Zone of Theoretical Visibility - Solar Stations and Battery Storage (BESS) with Buildings and Woodland Screening

FIGURE NUMBER

Figure 12-4d





AECOM

PROJECT

Tillbridge Solar Project

CLIENT

Tillbridge Solar Ltd

CONSULTANT

Ddgate Tower
Leman Street
ondon, E1 8FA
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+44-0207-645-2000

LEGEND

- Legend:

 - Order limits
 - Principal Site - 5km Buffer
 - Indicative Location of Substation A
 - Building
 - Woodland

one of Theoretical Visibility
Degree of Maximum
Visibility of Substation A
rea

Degree of Maximum Visibility
Not Visible
1 - 25%
25 - 50%
50 - 75%
75 - 100%

NOTES

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The Zone of Theoretical Visibility (ZTV) is based upon points along the external boundary to the indicated substation A Area with an anticipated station height of 30m and an observer height of 1.5m. It does not take account of theoretical visibility arising from panels within the solar panel area.

The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution. To provide evidence of theoretical screening, two additional databases have been included: OS Open Data with assumed height for buildings of 8m; and the Forestry Commission National Forestry Inventory (2021) and OS Open Data, with an assumed height of 11m.

The ZTV has been produced in order to inform 'on the ground' visual assessment and does not include effects

of screening derived from hedgerows or trees not included within the woodland database noted above.

ZTV calculated using ArcGIS 10.8.1 Viewshed tool.

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FIGURE TITLE

one of Theoretical Visibility -

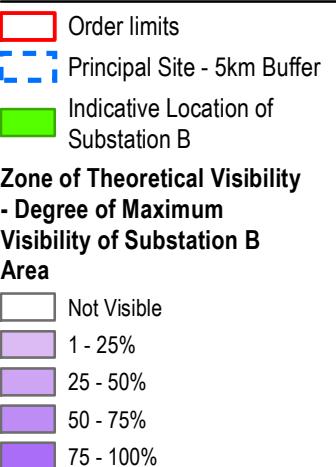
Substation A with Buildings and

Woodland Screening

FIGURE NUMBER

FIGURE NUMBER

Figure 12-4f



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1. The Zone of Theoretical Visibility (ZTV) is based upon points along the external boundary to the Substation B Area with an anticipated height of 10m and an observer height of 1.5m.
2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution.
3. The ZTV has been produced in order to inform 'on the ground' visual assessment and is based on a 'bare earth' model that does not include effects of screening derived from buildings or vegetation.
4. ZTV calculated using ArcGIS 10.8.1 Viewshed tool.
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FIGURE TITLE

Zone of Theoretical Visibility -
Substation B Bare Earth

FIGURE NUMBER

Figure 12-4g

CLIENT

Tillbridge Solar Ltd

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United Kingdom
+44-0207-645-2000

LEGEND

- Zone of Theoretical Visibility**

Degree of Maximum Visibility of Substation B

Area	Degree of Maximum Visibility
Not Visible	Not Visible
1 - 25%	1 - 25%
25 - 50%	25 - 50%
50 - 75%	50 - 75%
75 - 100%	75 - 100%

NOTES

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1. The Zone of Theoretical Visibility (ZTV) is based upon points along the external boundary to the Substation B Area with an anticipated station height of 10m and an observer height of 1.5m. It does not take account of theoretical visibility arising from panels within the solar panel area.

2. The ZTV has been generated using Environment Agency Digital Terrain Model (DTM) with a 2m resolution. To provide evidence of theoretical screening, two additional databases have been included: OS Open Data with assumed height for buildings of 8m; and the Forestry Commission National Forestry Inventory (2021) and OS Open Data, with an assumed height of 11m.

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FIGURE TITLE

Zone of Theoretical Visibility - Substation B with Buildings and Woodland Screening

FIGURE NUMBER

Figure 12-4h