



**N O R T H F A L L S**

*Offshore Wind Farm*

# **Cumulative visualisations at the onshore substation, including the Norwich to Tilbury Pylons wirelines Part 1 of 2 (Rev 0)**

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Date: April 2025  
Revision: 0



**NORTH FALLS**

*Offshore Wind Farm*

**Project Reference: EN010119**

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<b>Document Title</b>	Cumulative visualisations at the onshore substation, including the Norwich to Tilbury Pylons wirelines Part 1 of 2 (Rev 0)
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<b>Revision</b>	<b>Date</b>	<b>Status/Reason for Issue</b>	<b>Originator</b>	<b>Checked</b>	<b>Approved</b>
0	April 2025	Deadline 4	LUC	NFOW	NFOW

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## Tables

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## Glossary of Acronyms

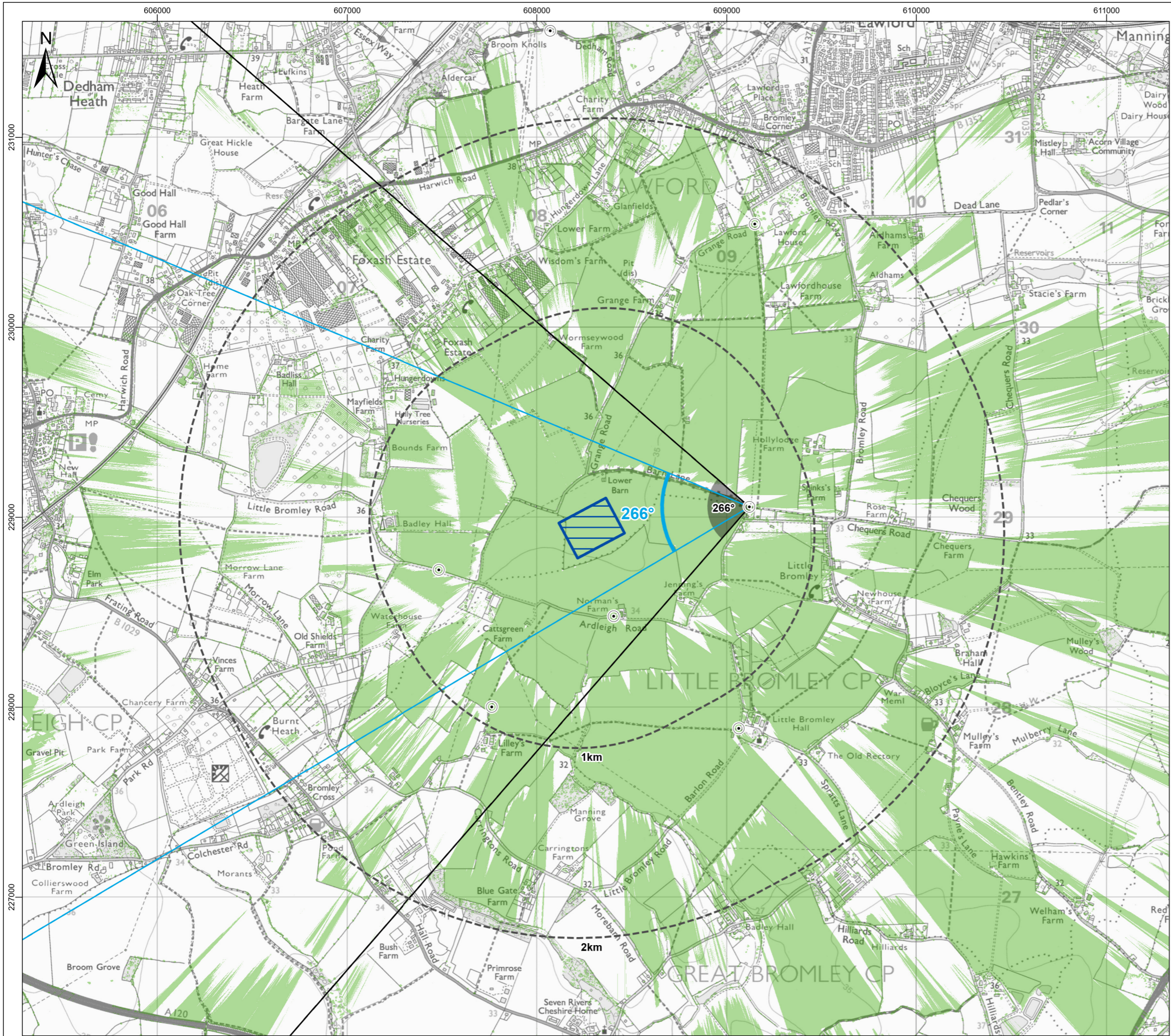
LVIA	Landscape and Visual Impact Assessment
ES	Environmental Statement

## Glossary of Terminology

Onshore substation	A compound containing electrical equipment required to transform and stabilise electricity generated by the Project so that it can be connected to the National Grid.
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## 1 Cumulative visualisations at the onshore substation, including the Norwich to Tilbury Pylons wirelines

1. This document contains updated versions of the visualisations provided in Environmental Statement (ES) Chapter 30 Figures **[APP-083 to APP-088]**, which show the developments considered within the cumulative effects assessment in ES Chapter 30 Landscape and Visual Impact Assessment (LVIA) **[APP-044]**. These visualisations have been updated to include the overhead lines for the proposed Norwich to Tilbury project. These updated visualisations have been provided following a request made by Essex County Council during a consultation meeting on 18 March 2025.
2. Updated cumulative visualisations have only been provided for those viewpoints where there is some visibility of the proposed Norwich to Tilbury project overhead lines. Therefore, no updated visualisations have been provided for Viewpoints 1 or 4.
3. Updated cumulative visualisations have been prepared for the baseline views and for the cumulative development (including the North Falls Offshore Wind Farm project, the Five Estuaries Offshore Wind Farm project and the Norwich to Tilbury project including the East Anglia Connection Node and overhead lines), including Year 1 planting, to demonstrate the worst-case scenario. Accordingly, fully mitigated views, (i.e. at Year 15 planting) are not shown (please refer to ES Chapter 30 Figures **[APP-083 to APP-088]** for the visualisations showing year 15 planting).



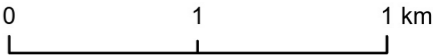
**Legend**

- North Falls Substation Operational Footprint
- Substation Operational Footprint 1km Interval Buffer
- Theoretical Visibility of Substation Components
- Viewpoint
- 53.5° Field of View
- 90° Field of View

**Notes**

The ZTV is calculated to a height of 18m (lightning masts) for the substation operational footprint, from a viewing height of 1.5m above ground level.

The digital surface model (DSM) used is LIDAR 1m (2022) data (obtained from DEFRA in December 2023). A DSM includes a surface model of trees, buildings and hedges. Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.2 software.



Data Source: OS, LUC, RHDHV

Drawing Title

**Viewpoint 2 - Bridleway at Barn Lane**

Rev	Date	Remarks	Drwn	Chkd
03	12/12/2022	Third issue	RW	JN
02	14/11/2022	Second Issue	RW	JN
01	28/09/2022	First issue	RW	JN

Drawing Number		Figure Number	
PB9244-LUC-ZZ-ON-DR-GS-0046		30.2.2	

Scale	Plot Size	Datum	Projection
1:20,000	A3	OSGB36	BNG





OS reference:	609119 E 229055 N
AOD (Above Ordnance Datum):	34.3 m
Direction of view:	266°
Distance to proposed substation :	0.68 km

Horizontal field of view:	90° (cylindrical projection)
Vertical field of view:	27°
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D750
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	18/05/2022 10:26



Visualisation showing cumulative development, including year 1 planting - (90 degree view)

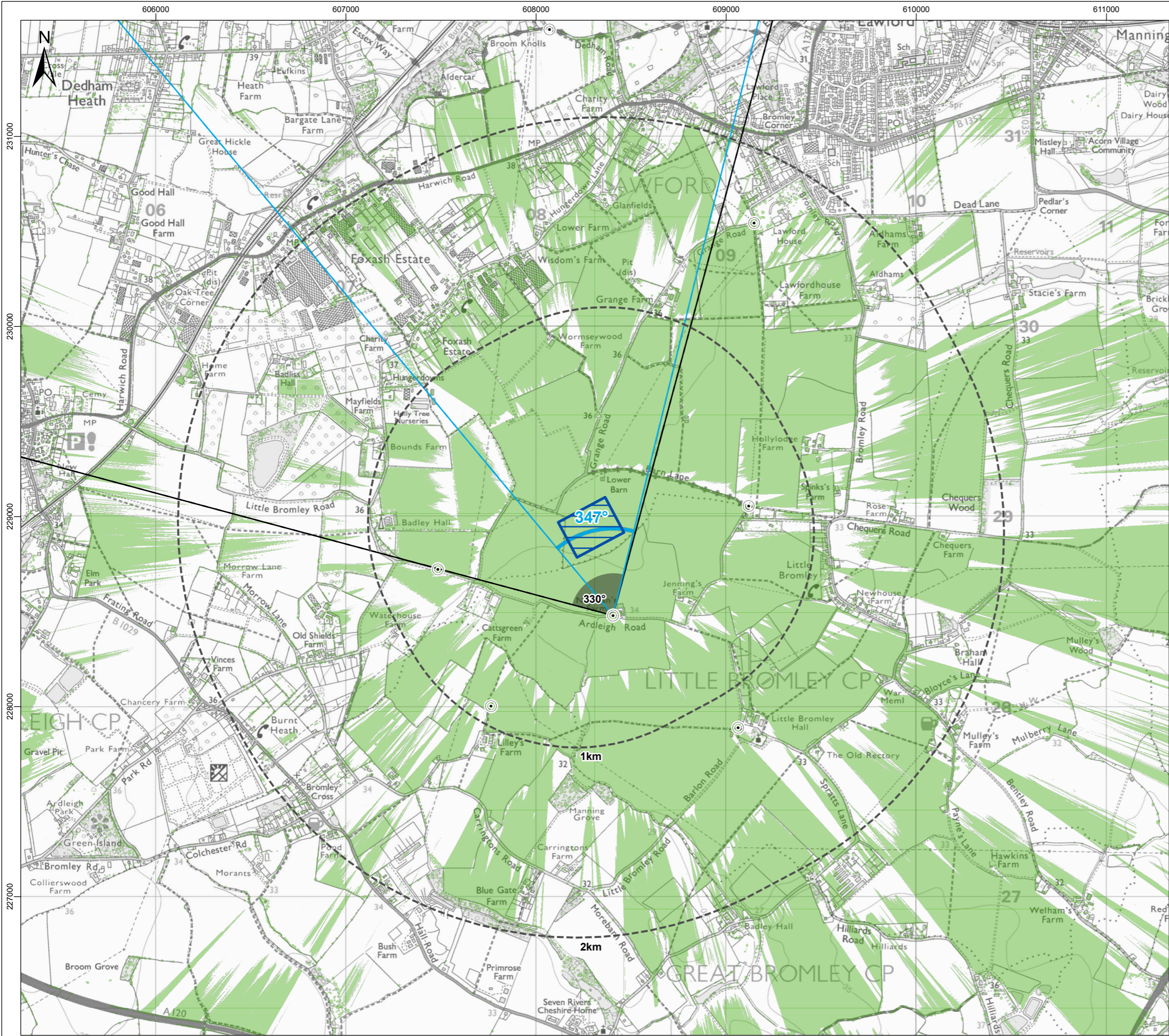


OS reference:	609119 E 229055 N
AOD (Above Ordnance Datum):	34.3 m
Direction of view:	266°
Distance to proposed substation :	0.68 km

Horizontal field of view:	90° (cylindrical projection)
Vertical field of view:	27°
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D750
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	18/05/2022 10:26

Proposed Norwich to Tilbury OHL	
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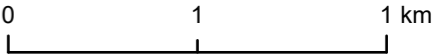
### Legend

- North Falls Substation Operational Footprint
- Substation Operational Footprint 1km Interval Buffer
- Theoretical Visibility of Substation Components
- Viewpoint
- 53.5° Field of View
- 90° Field of View

### Notes

The ZTV is calculated to a height of 18m (lightning masts) for the substation operational footprint, from a viewing height of 1.5m above ground level.

The digital surface model (DSM) used is LIDAR 1m (2022) data (obtained from DEFRA in December 2023). A DSM includes a surface model of trees, buildings and hedges. Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.2 software.



Data Source: OS, LUC, RHDHV

Drawing Title

### Viewpoint 3 - Norman's Farm

Rev	Date	Remarks	Drwn	Chkd
03	12/12/2022	Third issue	RW	JN
02	14/11/2022	Second Issue	RW	JN
01	28/09/2022	First issue	RW	JN

Drawing Number  
**PB9244-LUC-ZZ-ON-DR-GS-0047**

Figure Number  
**30.2.3**

Scale 1:20,000	Plot Size A3	Datum OSGB36	Projection BNG
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Baseline photograph - Summer



OS reference:	608405 E 228479 N
AOD (Above Ordnance Datum):	34.3 m
Direction of view:	330°
Distance to proposed substation :	0.36 km

Horizontal field of view:	90° (cylindrical projection)
Vertical field of view:	27°
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D750
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	18/05/2022 10:48



Visualisation showing cumulative development, including year 1 planting - (90 degree view)

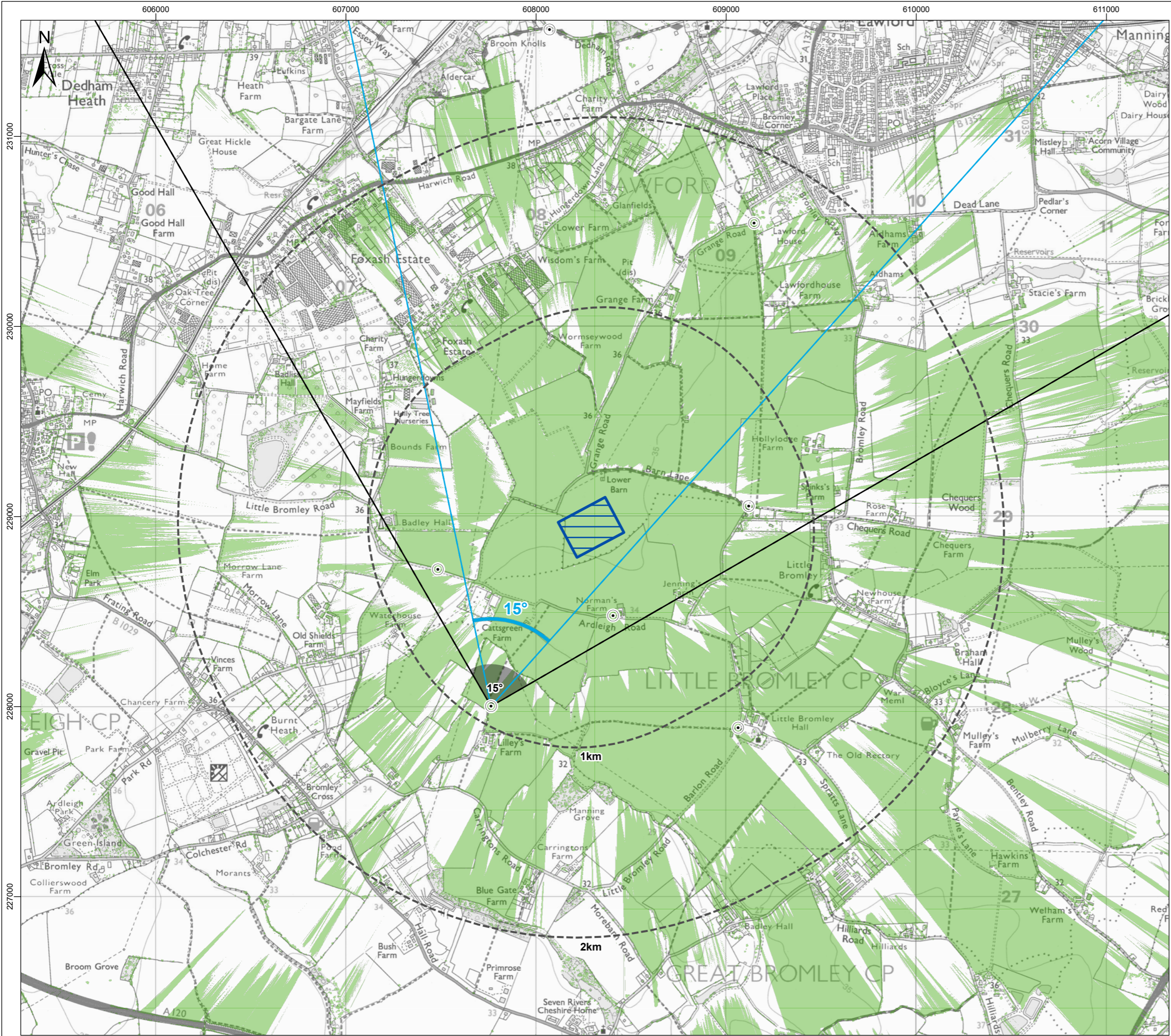


OS reference:	608405 E 228479 N
AOD (Above Ordnance Datum):	34.3 m
Direction of view:	330°
Distance to proposed substation :	0.36 km

Horizontal field of view:	90° (cylindrical projection)
Vertical field of view:	27°
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D750
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	18/05/2022 10:48

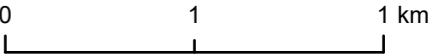
Proposed Norwich to Tilbury OHL	
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- Legend**
- North Falls Substation Operational Footprint
  - Substation Operational Footprint 1km Interval Buffer
  - Theoretical Visibility of Substation Components
  - Viewpoint
  - 53.5° Field of View
  - 90° Field of View

**Notes**  
The ZTV is calculated to a height of 18m (lightning masts) for the substation operational footprint, from a viewing height of 1.5m above ground level.

The digital surface model (DSM) used is LIDAR 1m (2022) data (obtained from DEFRA in December 2023). A DSM includes a surface model of trees, buildings and hedges. Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.2 software.



Data Source: OS, LUC, RHDHV

Drawing Title

**Viewpoint 5 - Public Right of Way  
near Lilley's Farm**

Rev	Date	Remarks	Drwn	Chkd
03	12/12/2022	Third issue	RW	JN
02	14/11/2022	Second Issue	RW	JN
01	28/09/2022	First issue	RW	JN

Drawing Number	Figure Number
<b>PB9244-LUC-ZZ-ON-DR-GS-0049</b>	<b>30.2.5</b>

Scale	Plot Size	Datum	Projection
1:20,000	A3	OSGB36	BNG





Baseline photograph - Summer



OS reference:	607763 E 228002 N
AOD (Above Ordnance Datum):	34.4 m
Direction of view:	12°
Distance to proposed substation :	0.9 km

Horizontal field of view:	90° (cylindrical projection)
Vertical field of view:	27°
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D750
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	18/05/2022 12:22



Visualisation showing cumulative development, including year 1 planting - (90 degree view)



OS reference:	607763 E 228002 N
AOD (Above Ordnance Datum):	34.4 m
Direction of view:	12°
Distance to proposed substation :	0.9 km

Horizontal field of view:	90° (cylindrical projection)
Vertical field of view:	27°
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D750
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	18/05/2022 12:22

Proposed Norwich to Tilbury OHL	
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## **HARNESSING THE POWER OF NORTH SEA WIND**

*North Falls Offshore Wind Farm Limited*

*A joint venture company owned equally by SSE Renewables and RWE.*

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