



**SCOTTISHPOWER  
RENEWABLES**

# **East Anglia ONE North and East Anglia TWO Offshore Windfarms**

## **Landscape and Visual Impact Assessment Addendum**

Applicants: East Anglia ONE North Limited and East Anglia TWO Limited  
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**Applicable to East Anglia ONE North and East Anglia TWO**



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## Glossary of Acronyms

DCO	Development Consent Order
ES	Environmental Statement
ESC	East Suffolk Council
GLVIA	Guidelines for Landscape and Visual Impact Assessment
IEMA	Institute of Environmental Management and Assessment
LIR	Local Impact Report
LMP	Landscape Management Plan
LVIA	Landscape and Visual Impact Assessment
NSIP	Nationally Significant Infrastructure Project
OLEMS	Outline Landscape and Ecology Management Strategy
OLMP	Outline Landscape Management Plan
PEIR	Preliminary Environmental Information Report
PRoW	Public Rights of Way
SCC	Suffolk County Council
SoCG	Statement of Common Ground
SuDS	Sustainable Drainage System
TGN	Technical Guidance Note
VNS	Visual Nature Studio



## Glossary of Terminology

Applicant	East Anglia TWO Limited / East Anglia ONE North Limited.
Cable sealing end compound	A compound which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Cable sealing end (with circuit breaker) compound	A compound (which includes a circuit breaker) which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Construction consolidation sites	Compounds associated with the onshore works which may include elements such as hard standings, lay down and storage areas for construction materials and equipment, areas for vehicular parking, welfare facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure.
Development area	The area comprising the onshore development area and the offshore development area (described as the 'order limits' within the Development Consent Order).
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
Mitigation areas	Areas captured within the onshore Development Area specifically for mitigating expected or anticipated impacts.
National electricity grid	The high voltage electricity transmission network in England and Wales owned and maintained by National Grid Electricity Transmission
National Grid infrastructure	A National Grid substation, cable sealing end compounds, cable sealing end (with circuit breaker) compound, underground cabling and National Grid overhead line realignment works to facilitate connection to the national electricity grid, all of which will be consented as part of the proposed East Anglia TWO / ONE North project Development Consent Order but will be National Grid owned assets.
National Grid overhead line realignment works	Works required to upgrade the existing electricity pylons and overhead lines (including cable sealing end compounds and cable sealing end (with circuit



	breaker) compound) to transport electricity from the National Grid substation to the national electricity grid.
National Grid overhead line realignment works area	The proposed area for National Grid overhead line realignment works.
National Grid substation	The substation (including all of the electrical equipment within it) necessary to connect the electricity generated by the proposed East Anglia TWO / ONE North project to the national electricity grid which will be owned by National Grid but is being consented as part of the proposed East Anglia TWO/ONE North project Development Consent Order.
National Grid substation location	The proposed location of the National Grid substation.
Onshore development area	The area in which the landfall, onshore cable corridor, onshore substation, landscaping and ecological mitigation areas, temporary construction facilities (such as access roads and construction consolidation sites), and the National Grid Infrastructure will be located.
Onshore infrastructure	The combined name for all of the onshore infrastructure associated with the proposed East Anglia TWO / ONE North project from landfall to the connection to the national electricity grid.
Onshore preparation works	Activities to be undertaken prior to formal commencement of onshore construction such as pre-planting of landscaping works, archaeological investigations, environmental and engineering surveys, diversion and laying of services, and highway alterations.
Onshore substation	The East Anglia TWO / ONE North substation and all of the electrical equipment within the onshore substation and connecting to the National Grid infrastructure.
Onshore substation location	The proposed location of the onshore substation for the proposed East Anglia TWO / ONE North project.
SuDS – Sustainable Drainage System	Approaches to manage surface water that take account of water quantity (flooding), water quality (pollution) biodiversity (wildlife and plants) and amenity

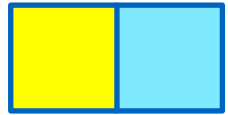


# 1 Introduction

1. This updated substation visual assessment note has been prepared by East Anglia TWO Limited and East Anglia ONE North Limited (the Applicants). It provides clarification on refined assessments that have been made to elements of the East Anglia ONE North and East Anglia TWO projects (the Projects).
2. This document is applicable to both the East Anglia ONE North and East Anglia TWO DCO applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions on document management of 23<sup>rd</sup> December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.
3. It should be noted regarding **section 3.1** relates to the East Anglia ONE North project only and therefore the section is highlighted in yellow. Similarly, **section 3.2** relates to the East Anglia TWO project only and therefore the section is highlighted in blue. In addition, whilst this addendum applies to both Projects the Appendices are project specific.

## 1.1 Purpose

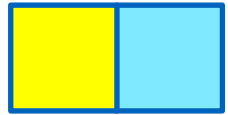
4. The Applicants have provided submissions at Deadline 3 in relation to the onshore substations and National Grid substation, including updated substation arrangements, updated details of finished ground levels and reductions in substation equipment heights. The details of these refinements are set out in the ***Onshore Substations Update Clarification Note*** (REP3-057).
5. The Applicants have also provided an updated ***Outline Landscape and Ecological Management Strategy*** (OLEMS) at Deadline 3 (REP3-030) which describes and illustrates changes to the Outline Landscape Mitigation Plan (OLMP) to allow for the updated substation arrangements. The OLMP has been updated and submitted at deadline 4 (document reference ExA.AS-14.D4.V1).
6. The purpose of this note is therefore to provide updated visual assessments of the Projects onshore substations and National Grid infrastructure, in light of these design updates to the substations and OLMP. It focuses on updates to the visual assessment arising from the 14 representative LVIA viewpoints, informed by the updated photomontages contained within ***Appendix 1***.
7. Photomontages from a selection of key LVIA viewpoints that address the updated substation arrangements, finished ground levels, reductions in substation



equipment heights and updates to the OLMP these changes are provided in **Appendix 1**. These photomontages include the following:

- Viewpoint 1: PRoW near Friston House (**Figure 29.13-Update**) (**Appendix 1** of this document).
  - Viewpoint 2: Friston, Church Road (**Figure 29.14-Update**) (**Appendix 2** of this document).
  - Viewpoint 3: Grove Road, near Pear Tree Farm (**Figure 29.15-Update**) (**Appendix 3** of this document).
  - Viewpoint 4: Grove Road, near Church Road (Friston) (**Figure 29.16-Update**) (**Appendix 4** of this document)
  - Viewpoint 5: PRoW, near Moor Farm (**Figure 29.17-Update**) (**Appendix 5** of this document)
  - Viewpoint 6: Friston, Village Green (**Figure 29.18-Update**) (**Appendix 6** of this document)
  - Viewpoint 8: Saxmundham Road (North of Friston) (**Figure 29.20-Update**) (**Appendix 7** of this document).
  - Viewpoint 9: B1121 Aldeburgh Road, south of Friston (**Figure 29.21-Update**) (**Appendix 8** of this document)
8. The Applicants have also provided an **Updated Photomontage Clarification Note** (REP3-063) at Deadline 3 that provides clarification with regard to the photomontage production principles.
9. Updated photomontages have not been produced for viewpoints where there are no material changes to the view shown in the ES photomontages, for example where existing woodland provided screening of the Projects onshore substations and National Grid infrastructure in the submitted ES versions and will continue to do so in light of the design updates to the substations and OLMP. These viewpoints where updated photomontages have not been produced are as follows:
- Viewpoint 7: PRoW east of Friston (**ES Figure 29.19**) (APP-410).
  - Viewpoint 10: B1119 (**ES Figure 29.22**) (APP-413).
  - Viewpoint 11: Knodishall Hall (**ES Figure 29.22**) (APP-414).
  - Viewpoint 12: Knodishall Common (**ES Figure 29.22**) (APP-415).
  - Viewpoint 13: Snape Road (**ES Figure 29.23**) (APP-416).
  - Viewpoint 14 Grove Road (**ES Figure 29.26**) (APP-417).





## 2 Changes to Onshore Substations

### 2.1 Outline of Changes to Onshore Substations

#### 2.1.1.1 Onshore Substations Update Clarification Note

10. The Applicants have provided submissions at Deadline 3 in its **Onshore Substations Update Clarification Note** (REP3-057) in relation to the onshore substations and National Grid substation. This outlines the following key refinements:

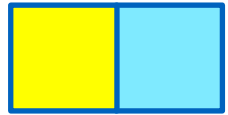
- Reduction in the footprint of each of the onshore substations and their resulting relocation (as summarised in the **Project Update Note** (REP2-007) submitted at Deadline 2);
- Lowering of the finished ground levels at the locations of the eastern onshore substations and National Grid substation (as summarised in the **Deadline 3 Project Update Note** (REP3-052); and
- Reduction in the maximum heights of the buildings and external equipment at both onshore substations (as summarised in the **Deadline 3 Project Update Note** (REP3-052).

#### 2.1.1.2 Updated OLEMS and Mitigation

11. The Applicants have also provided an updated **OLEMS** at Deadline 3 (REP3-030) which describes and illustrates changes to the OLMP. These changes to the OLMP have been made to address updates required for the reduction in the footprint of each of the onshore substations and their resulting relocation.

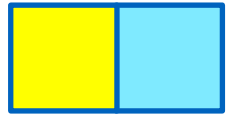
12. The changes to the OLMP are set out in full in the updated **OLEMS** (REP3-030) and illustrated in **Figures 3-9** of the updated **OLEMS**, particularly in **Figure 3** (General Arrangement), **Figure 5** (OLMP Illustrative Plan) and **Figure 7** (OLMP Timing of Planting); they can be summarised as follows with reference to these OLMP figures:

- **Reduction of each onshore substation footprint to 190m x 170m** – Reducing the footprints of the onshore substations allows for the western boundary of the westernmost substation to be relocated 40m to the north-east. This in turn allows for retention of an existing area of established woodland approximately 2,700m<sup>2</sup> in area (in a depression to the west of PRoW E-354/006/0), which would have previously been removed. This woodland will be retained to provide additional visual screening of the onshore substations and National Grid infrastructure in views from the south and west.
- **Further planting on the western side of western substation** - relocation of the westernmost onshore substation creates an additional area adjacent



to this retained woodland where additional post-construction woodland planting is now proposed adjacent to the western substation and on higher ground, to provide further screening in views from the south and south-west. Woodland planting along the PRoW to the west (E-260/017/0), between Friston House / SuDS basin and the proposed overhead line realignment, has been reduced in width to allow for the more effective new screen planting on the higher ground to the east next to the western substation.

- **Movement of National Grid SuDS basin eastwards** – The National Grid SuDS basin has been moved eastwards towards the National Grid substation, allowing space for further woodland planting between the access road and SuDS basin.
  - **Additional planting to the north of the substations** – Additional planting is proposed to the north of the National Grid substation, particularly in the areas around the sealing end compounds, to provide additional screening of these compounds and in areas near Little Moor Farm and Moor Farm. Additional edge woodland planting is proposed to the north of the National Grid substation, particularly in the areas around the cable sealing end compounds, to provide additional screening of these compounds. These areas are proposed as edge woodland (rather than higher core or screening species) to limit the ultimate height of the tree canopy in areas between the re-aligned overhead transmission line, where the overhead electrical cables are a constraint to higher planting.
  - **Covert woodland planting** – The addition of small edges of covert woodland planting alongside field boundaries to the north of Friston, to provide additional screening in views from the northern edge of the village, while retaining a 'layered' screening approach and open setting. These are proposed as small field edge woodlands with sparse, scrubby, fast growing species with a low ultimate height (similar to some of the existing planting evident in this area), in order to avoid enclosure of views and retain the open setting, while providing a layered screening of the onshore substations.
  - **Additional individual tree planting** – The density of individual tree planting along hedgerow boundaries/tree lined avenues has been increased to provide more trees in these avenues at closer spacing.
  - **PRoW re-alignments** – Updates to proposed planting to address updates to the route of PRoW diversions, including to the north near Fristonmoor; to the east through woodland offset from Grove Road; and through Laurel Covert.
13. The reduction in the footprint of each of the onshore substations and their resulting relocation, refinements to finished ground levels, reduction in substation equipment heights and updates to the OLMP have implications in terms of further mitigation provided and potential reduction in landscape and visual effects. These



are considered in this updated visual assessment and any changes to landscape and visual effects resulting from the design refinements are assessed in Section 3, both within the tabular assessments of effects in **Table 3.1 – Table 3.4** and the summary of findings in **section 3.3**.



### 3 Updated Visual Assessment

14. This section presents updated visual assessments of the Projects onshore substations and National Grid infrastructure, taking account of the design updates to the Projects substations and OLMP. It focuses on updates to the visual assessment of the Projects onshore substations and National Grid infrastructure arising from the 14 representative LVIA viewpoints.
15. The assessment is informed by the updated photomontages contained within **Appendix 1**, and considers effects during construction and operation, using the assessment methodology set out in **ES Appendix 29.2** (APP-566).
16. The landscape effects assessment contained within **ES Appendix 29.3** (APP-567) and summarised in **sections 29.6.1.3** and **29.6.2.2** of **ES Chapter 29** (APP-077) remains unchanged.
17. The potential landscape and visual effects of the onshore substation and National Grid infrastructure for each of the Projects and are assessed below during construction and operation. Tabular assessment provided in **Table 3.1** to **Table 3.4** below comparing the ES assessment made in **ES Chapter 29** (APP-077), with the updated assessments taking account of the design updates to the Projects substations and OLMP (Deadline 4). Further narrative assessment is provided in **section 3.4** below.



### 3.1 East Anglia ONE North

#### 3.1.1 Potential Visual Effects During Construction

**Table 3.1 East Anglia ONE North Potential Visual Effects during CONSTRUCTION – Onshore Substation and National Grid Infrastructure**

Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment		Updated Assessment (Deadline 4)	
		Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
Viewpoint 1: Public Right of Way near Friston House	Walkers: medium-high Residents: high	High	<b>Significant</b> , short-term, temporary	High <b>NO CHANGE</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 2: Friston, Church Road	Walkers: medium-high Residents: high	High	<b>Significant</b> , short-term, temporary	Medium-high <b>REDUCED</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	Low	<b>Not significant</b> , long-term and temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term and temporary <b>NO CHANGE</b>
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high Motorists: medium	Medium	Walkers and residents: <b>Significant</b> , short-term, temporary  Motorists: <b>Not significant</b> , short-term, temporary	Medium <b>NO CHANGE</b>	Walkers and residents: <b>Significant</b> , short-term, temporary  Motorists: <b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 5: Public Right of Way, near Moor Farm	Walkers: medium-high Residents: high	High	<b>Significant</b> , short-term, temporary	High <b>NO CHANGE</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>



Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment		Updated Assessment (Deadline 4)	
		Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
Viewpoint 6: Friston, Village Green	Residents: high Motorists: medium-high	Low	<b>Not significant</b> , short-term, temporary	Negligible <b>REDUCED</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible	<b>Not significant</b> , short-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Residents: high Motorists: medium	Medium-high	Residents: <b>Significant</b> , short-term, temporary Motorists: <b>Significant</b> , short-term, temporary	Medium-high <b>NO CHANGE</b>	Residents: <b>Significant</b> , short-term, temporary Motorists: <b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Residents: high Motorists: medium	Medium-low	Residents: <b>Significant</b> , short-term, temporary Motorists: <b>Not significant</b> , short-term, temporary	Low <b>REDUCED</b>	Residents and motorists: <b>Not significant</b> , short-term, temporary <b>REDUCED</b>
Viewpoint 10: B1119 Saxmundham Road	Motorists: medium	Low	<b>Not significant</b> , short-term, temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 11: Knodishall Hall	Residents: high	Low	<b>Not significant</b> , short-term, temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>



Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment		Updated Assessment (Deadline 4)	
		Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
Viewpoint 12: Knodishall Common	Walkers: medium-high	Negligible	<b>Not significant</b> , short-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible	<b>Not significant</b> , short-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High	<b>Significant</b> , short-term, temporary	High <b>NO CHANGE</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>

### 3.1.2 Potential Visual Effects During Operation

**Table 3.2 East Anglia ONE North Potential Visual Effects during OPERATION – Onshore Substation and National Grid Infrastructure**

Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment				Updated Assessment (Deadline 4)			
		Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 1: Public Right of Way near Friston House	Walkers: medium-high Residents: high	High	<b>Significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 2: Friston, Church Road	Walkers: medium-high Residents: high	High	<b>Significant</b> , long-term, temporary	Medium-high	<b>Significant</b> , long-term, permanent	Medium-high <b>REDUCED</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>REDUCED</b>	<b>Significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	Low	<b>Not significant</b> , long-term and temporary	Negligible	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term and temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high Motorists: medium	Medium	Walkers, cyclists and residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary	Medium	Walkers, cyclists and residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, temporary	Medium <b>NO CHANGE</b>	Walkers, cyclists and residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	Walkers, cyclists and residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>
Viewpoint 5: Public Right of Way, near Moor Farm	Walkers: medium-high Residents: high	High	<b>Significant</b> , long-term, temporary	Medium	<b>Significant</b> , long-term, permanent	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary	Medium <b>NO CHANGE</b>	<b>Significant</b> , long-term, permanent <b>NO CHANGE</b>





Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment				Updated Assessment (Deadline 4)			
		Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 6: Friston, Village Green	Residents: high Motorists: medium-high	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Negligible <b>REDUCED</b>	<b>Not significant</b> , long-term, temporary	Negligible <b>REDUCED</b>	<b>Not significant</b> , long-term, permanent
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible	<b>Not significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Residents: high Motorists: medium	Medium-high	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary	Medium	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent	Medium-high <b>NO CHANGE</b>	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Residents: high Motorists: medium	Medium-low	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary	Medium-low	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent	Low <b>REDUCED</b>	Residents and motorists: <b>Not significant</b> , long-term, temporary <b>REDUCED</b>	Low <b>REDUCED</b>	Residents and motorists: <b>Not significant</b> , long-term, permanent <b>REDUCED</b>
Viewpoint 10: B1119 Saxmundham Road	Motorists: medium	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>

Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment				Updated Assessment (Deadline 4)			
		Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 11: Knodishall Hall	Residents: high	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 12: Knodishall Common	Walkers: medium-high	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible	<b>Not significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High	<b>Significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>



## 3.2 East Anglia TWO

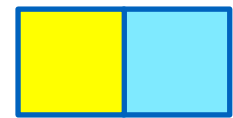
### 3.2.1 Potential Visual Effects During Construction

**Table 3.3 East Anglia TWO Potential Visual Effects during CONSTRUCTION – Onshore Substation and National Grid Infrastructure**

Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment		Updated Assessment (Deadline 4)	
		Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
Viewpoint 1: Public Right of Way near Friston House	Walkers: medium-high Residents: high	High	<b>Significant</b> , short-term, temporary	Medium-high <b>REDUCED</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 2: Friston, Church Road	Walkers: medium-high Residents: high	Medium-high	<b>Significant</b> , short-term, temporary	Medium <b>REDUCED</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	Low	<b>Not significant</b> , long-term and temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term and temporary <b>NO CHANGE</b>
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high Motorists: medium	Medium	Walkers and residents: <b>Significant</b> , short-term, temporary Motorists: <b>Not significant</b> , short-term, temporary	Low <b>REDUCED</b>	<b>Not significant</b> , long-term and temporary <b>REDUCED</b>
Viewpoint 5: Public Right of Way, near Moor Farm	Walkers: medium-high Residents: high	High	<b>Significant</b> , short-term, temporary	High <b>NO CHANGE</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 6: Friston, Village Green	Residents: high	Low	<b>Not significant</b> , short-term, temporary	Low	<b>Not significant</b> , short-term, temporary



Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment		Updated Assessment (Deadline 4)	
		Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
	Motorists: medium-high			<b>NO CHANGE</b>	<b>NO CHANGE</b>
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible	<b>Not significant</b> , short-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Residents: high Motorists: medium	Medium-high	Residents: <b>Significant</b> , short-term, temporary Motorists: <b>Significant</b> , short-term, temporary	Medium-high <b>NO CHANGE</b>	Residents: <b>Significant</b> , short-term, temporary Motorists: <b>Significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Residents: high Motorists: medium	Medium-low	Residents: <b>Significant</b> , short-term, temporary Motorists: <b>Not significant</b> , short-term, temporary	Low <b>REDUCED</b>	Residents and motorists: <b>Not significant</b> , short-term, temporary <b>REDUCED</b>
Viewpoint 10: B1119 Saxmundham Road	Motorists: medium	Medium-low	<b>Not significant</b> , short-term, temporary	Medium-low <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 11: Knodishall Hall	Residents: high	Low	<b>Not significant</b> , short-term, temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>



Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment		Updated Assessment (Deadline 4)	
		Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
Viewpoint 12: Knodishall Common	Walkers: medium-high	Negligible	<b>Not significant</b> , short-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible	<b>Not significant</b> , short-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , short-term, temporary <b>NO CHANGE</b>
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High	<b>Significant</b> , short-term, temporary	High <b>NO CHANGE</b>	<b>Significant</b> , short-term, temporary <b>NO CHANGE</b>

### 3.2.2 Potential Visual Effects During Operation

**Table 3.4 East Anglia TWO Potential Visual Effects during OPERATION – Onshore Substation and National Grid Infrastructure**

Submitted ES Chapter 29 Assessment						Updated Assessment (Deadline 4)			
Receptor	Sensitivity to change	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 1: Public Right of Way near Friston House	Walkers: medium-high Residents: high	High	<b>Significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	Medium-high <b>REDUCED</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 2: Friston, Church Road	Walkers: medium-high Residents: high	Medium-high	<b>Significant</b> , long-term, temporary	Medium	<b>Significant</b> , long-term, permanent	Medium <b>REDUCED</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>REDUCED</b>	<b>Not significant</b> , long-term, permanent <b>REDUCED</b>
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	Low	<b>Not significant</b> , long-term and temporary	Negligible	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term and temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high Motorists: medium	Medium-low	Walkers and residents: <b>Not significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>REDUCED</b>	Walkers and residents: <b>Not significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low to negligible <b>REDUCED</b>	<b>Not significant</b> , long-term, permanent <b>REDUCED</b>
Viewpoint 5: Public Right of Way, near Moor Farm	Walkers: medium-high Residents: high	High	<b>Significant</b> , long-term, temporary	Medium	<b>Significant</b> , long-term, permanent	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	<b>Significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 6: Friston, Village Green	Residents: high Motorists: medium-high	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>REDUCED</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible	<b>Not significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Residents: high Motorists: medium	Medium	Residents: <b>Significant</b> , long-term, temporary	Medium-low	Residents: <b>Significant</b> , long-term, permanent	Medium <b>NO CHANGE</b>	Residents: <b>Significant</b> , long-term, temporary	Medium-low <b>NO CHANGE</b>	Residents: <b>Significant</b> , long-term, permanent

Receptor	Sensitivity to change	Submitted ES Chapter 29 Assessment				Updated Assessment (Deadline 4)			
		Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
			Motorists: <b>Not significant</b> , long-term, temporary		Motorists: <b>Not significant</b> , long-term, permanent		Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>		Motorists: <b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Residents: high Motorists: medium	Medium-low	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary	Medium-low	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent	Low <b>REDUCED</b>	Residents and motorists: <b>Not significant</b> , long-term, temporary <b>REDUCED</b>	Low <b>REDUCED</b>	Residents and motorists: <b>Not significant</b> , long-term, permanent <b>REDUCED</b>
Viewpoint 10: B1119 Saxmundham Road	Motorists: medium	Medium-low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Medium-low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent
Viewpoint 11: Knodishall Hall	Residents: high	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent
Viewpoint 12: Knodishall Common	Walkers: medium-high	Low	<b>Not significant</b> , long-term, temporary	Low	<b>Not significant</b> , long-term, permanent	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible	<b>Not significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High	<b>Significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent





### 3.3 Cumulative Impacts of the Proposed East Anglia ONE North and East Anglia TWO Project

Table 3.5 Cumulative Impacts of the Proposed East Anglia ONE North and East Anglia TWO Project during OPERATION – Onshore Substation and National Grid Infrastructure

Submitted ES Chapter 29 Assessment						Updated Assessment (Deadline 4)				
Receptor	Magnitude of change and significance of effect (construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of change and significance of effect (construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 1: Public Right of Way near Friston House	High magnitude <b>Significant</b> , medium-term, temporary	High	<b>Significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	High magnitude <b>Significant</b> , medium-term, temporary <b>NO CHANGE</b>	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 2: Friston, Church Road	High magnitude <b>Significant</b> , medium-term, temporary	High	<b>Significant</b> , long-term, temporary	Medium-high	<b>Significant</b> , long-term, permanent	Medium-high magnitude <b>Significant</b> , medium-term, temporary <b>REDUCED</b>	Medium-high <b>REDUCED</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>REDUCED</b>	<b>Significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 3: Grove Road, near Pear Tree Farm	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	Scoped out as <b>Not significant</b> <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term and temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 4: Friston, Grove Road	Medium magnitude <b>Significant</b> , medium-term, temporary	Medium	Walkers and residents: <b>Significant</b> , long-term, temporary  Motorists: <b>Significant</b> , long-term, temporary	Medium	<b>Significant</b> , long-term, permanent	Medium magnitude <b>Significant</b> , medium-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	Walkers, cyclists and residents: <b>Significant</b> , long-term, temporary  Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	Walkers, cyclists and residents: <b>Significant</b> , long-term, permanent  Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>
Viewpoint 5: Public Right of Way, near Moor Farm	High magnitude <b>Significant</b> , medium-term, temporary	High	<b>Significant</b> , long-term, temporary	Medium	<b>Significant</b> , long-term, permanent	High magnitude <b>Significant</b> , medium-term, temporary <b>NO CHANGE</b>	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	<b>Significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 6: Friston, Village Green	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	<b>Not significant</b> <b>NO CHANGE</b>	Negligible <b>REDUCED</b>	<b>Not significant</b> , long-term, temporary	Negligible <b>REDUCED</b>	<b>Not significant</b> , long-term, permanent

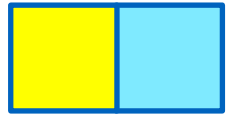




Submitted ES Chapter 29 Assessment						Updated Assessment (Deadline 4)				
Receptor	Magnitude of change and significance of effect (construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of change and significance of effect (construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 7: Public Right of Way, east of Friston	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	<b>Not significant</b> <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Medium-high magnitude <b>Significant</b> , medium-term, temporary	Medium-high	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Significant</b> , long-term, temporary	Medium	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent	Medium-high magnitude <b>Significant</b> , medium-term, temporary <b>NO CHANGE</b>	Medium-high <b>NO CHANGE</b>	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium <b>NO CHANGE</b>	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Medium magnitude Residents: <b>Significant</b> , medium-term, temporary Motorists: <b>Not significant</b> , medium-term, temporary	Medium	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary	Medium	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent	Medium-low magnitude Residents: <b>Significant</b> , medium-term, temporary Motorists: <b>Not significant</b> , medium-term, temporary <b>REDUCED</b>	Medium-low <b>REDUCED</b>	Residents: <b>Significant</b> , long-term, temporary Motorists: <b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Medium-low <b>REDUCED</b>	Residents: <b>Significant</b> , long-term, permanent Motorists: <b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 10: B1119 Saxmundham Road	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	<b>Not significant</b> <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 11: Knodishall Hall	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	<b>Not significant</b> <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 12: Knodishall Common	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	<b>Not significant</b> <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Low <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>



Receptor	Submitted ES Chapter 29 Assessment					Updated Assessment (Deadline 4)				
	Magnitude of change and significance of effect (construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)	Magnitude of change and significance of effect (construction)	Magnitude of Change (operation, first year of operational phase)	Significance of Effect (operation, first year of operational phase)	Magnitude of Change (operation, 15 years post construction)	Significance of Effect (operation, 15 years post construction)
Viewpoint 13: B1069 Snape Road	Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>		Scoped out as <b>Not significant</b>	<b>Not significant</b> <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>
Viewpoint 14: Grove Road	High magnitude <b>Significant</b> , medium-term, temporary	High	<b>Significant</b> , long-term, temporary	Negligible	<b>Not significant</b> , long-term, permanent	High magnitude <b>Significant</b> , medium-term, temporary <b>NO CHANGE</b>	High <b>NO CHANGE</b>	<b>Significant</b> , long-term, temporary <b>NO CHANGE</b>	Negligible <b>NO CHANGE</b>	<b>Not significant</b> , long-term, permanent <b>NO CHANGE</b>



### 3.4 Summary of Findings

18. The revised assessment in **Table 3.1** to **Table 3.5** only assesses whether there has been a reduction in the magnitude of change and thereby significance. A key part of mitigation is reducing the intensity of significant effects. It is clear from the photomontages in **Appendix 1-8** that the combination of the reduction in the footprint of each of the onshore substations and their resulting relocation, refinements to finished ground levels, reduction in substation equipment heights and updates to the OLMP provide further mitigation is beneficial and likely to result in reductions in landscape and visual effects assessed in the ES. The visual effects of the substations resulting following the design refinements are described further as follows with reference to representative viewpoints from the key receptor areas.

#### 3.4.1 Viewpoints from Friston area to the south

##### 3.4.1.1 Viewpoint 1 - PRow near Friston House (**Figure 29.13-Update**) (**Appendix 1** of this document)

19. The reduction in the footprint of each of the onshore substations and their resulting relocation (as summarised in the **Project Update Note** (REP2-007) submitted at Deadline 2) allows the retention of an existing area of established woodland (in a depression to the west of PRow E-354/006/0), which would have previously been removed. The retention of this existing woodland provides additional screening of the western substation and National Grid substation in views from the south-west and west, such as Viewpoint 1 PRow near Friston House (**Appendix 1** of this document). The reduction in the footprint of each of the onshore substations and their resulting relocation also creates an area adjacent to this retained woodland where additional woodland planting is now proposed adjacent to the western substation, to provide further screening.
20. In Viewpoint 1, there is a notable reduction in the massing and apparent height of both the eastern and western substations and their associated buildings and external infrastructure visible in the view. The magnitude of change resulting from the western substation remains high and significant at Year 1 of operation, however there is a clear reduction in the height, scale and massing, and additional screening from the retained woodland with reference to **ES Figure 29.13b** (APP-404) and **Figure 29.13b-Update** (**Appendix 1** of this document).. For the eastern substation in Viewpoint 1, the visual effects are considered to reduce in magnitude to medium-high, due to the increased distance, reduced height, scale and massing, with reference to **ES Figure 29.13b** (APP-404) and **Figure 29.13c-Update** (**Appendix 1** of this document).



3.4.1.2 Viewpoint 2 - Friston, Church Road (**Figure 29.14-Update**) (**Appendix 2** of this document)

21. Viewpoint 2 is representative of the worse-case views from the northern edge of Friston, from the PRoW off Church Road. Lowering of the finished ground levels at the location of the eastern onshore substation and National Grid substation (as summarised in the **Project Update Note for Deadline 3** (document reference ExA.AS-6.D3.V1), combined with reduction in the maximum heights of the buildings and external equipment at both onshore substations, has reduced the massing, apparent height and amount of buildings and external equipment visible in this key view.
22. In Viewpoint 2 Friston, Church Road (**Figure 29.14-Update**) (**Appendix 2** of this document), there is a notable reduction in the visibility of both onshore substations and the National Grid substation, at Year 1 and Year 15. In particular, at Year 1, there is notably reduced visibility of the eastern substation with its lower finished ground levels and equipment heights; reduced massing and height of equipment visible in the western substation; and more screening of the National Grid substation due to the retained woodland.
23. The effects of both project substations on receptors at Viewpoint 2 are assessed as reducing in magnitude at Year 1 of operation; to medium-high for the western substation and medium for the eastern substation, with reference to **ES Figure 29.14b (APP-405)** and **Figure 29.14b-Update (Appendix 2** of this document).
24. Additional areas of small 'Covert' field edge woodland planting are proposed alongside field boundaries to the north of Friston (south of the onshore substation location) and will provide additional layered screening of Projects substations, and the National Grid substations in the Year 15 of operation views from the northern edge of the village, such as in Viewpoint 2 Friston, Church Road (**Figure 29.14c-Update**) (**Appendix 2** of this document). The additional planting is proposed as small field edge woodlands with sparse, scrubby, fast growing species with a low ultimate height (similar to some of the existing planting evident in this area), in order to avoid enclosure of views and retain the open setting, while providing a layered screening of the onshore substations. The visual effects resulting from both the western substation and eastern substation have therefore been afforded further mitigation, with the magnitude of change resulting from the eastern substation assessed as low and not significant in Viewpoint 2; and the magnitude of change resulting from the western substation assessed as medium and remaining significant, with reference to **ES Figure 29.14b (APP-405)** and **Figure 29.14b-Update (Appendix 2** of this document).



3.4.1.3 Viewpoint 4 - Grove Road, near Church Road (Friston) (Figure 29.16-Update)  
(**Appendix 4** of this document)

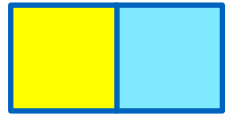
25. Reductions in visual effect are also noted from other viewpoints on the northern edge of Friston, such as from Viewpoint 4 Grove Road, where the eastern substation is assessed as having a low magnitude of change at Year 1 of operation (**Figure 29.16b-Update (Appendix 4** of this document)), dropping to low to negligible by Year 15, due to the limited visibility of the substations and infrastructure through intervening vegetation and layers of proposed planting.

3.4.1.4 Viewpoint 6 - Friston Village Green (**Figure 29.18-Update**) (**Appendix 6** of this document)

26. Lowering of the finished ground levels, combined with reduction in the maximum heights of the buildings and external equipment at both onshore substations, has also reduced the amount of the substation buildings and external equipment visible in views from the centre of Friston, as shown in Viewpoint 6 Friston Village Green (**Figure 29.18-Update (Appendix 6** of this document)). The western substation is no longer visible and is assessed as having a negligible magnitude of change at both Year 1 and Year 15 of operation. Only the upper most elements of the harmonic filters of the eastern substation may be visible, partially screened by existing vegetation, such that they have a low magnitude of change at Year 1 of operation and a negligible magnitude of change by Year 15. In the summer months, when trees are in leaf, there will be further screening and it is likely that there will be no effects at all in such views from Friston village green.

3.4.1.5 Viewpoint 9 B1121 Aldeburgh Road, south of Friston (**Figure 29.21-Update**) (**Appendix 8** of this document)

27. The project design updates, including the relocation in the footprint of each of the onshore substations, lowering of the finished ground levels and maximum heights of the infrastructure has also notably reduced the amount of the Project substation buildings and external equipment visible in views from the southern area of Friston and on approaches to the village from the south, such as in the view from Viewpoint 9 - B1121 Aldeburgh Road, south of Friston (**Figure 29.21-Update (Appendix 8** of this document)). With regards the western substation, there is notably less of the taller infrastructure such as the harmonic filters and lighting rods visible in the view in the backdrop to Friston, with the majority of these elements being screened and only the upper parts appearing behind vegetation, which provides partial screening. The magnitude of change is assessed as reducing to low and the effect not significant for both residents of this main southern part of Friston and people approaching Friston on the B1121 Aldeburgh Road.
28. With respect to the eastern substation, with reference to **ES Figure 29.21b** and **Figure 29.21b-Update (Appendix 8** of this document), only a limited part of the



upper section of the GIS substation building will be visible, such that there is also clear reduction in visual effect evident compared to the ES photomontage, as a result of the reduced visibility of just the upper part of the GIS substation building, which is also partially screened behind vegetation. The magnitude of change for the eastern substation is also assessed as reducing to low and not significant for both residents of this main southern part of Friston and people approaching Friston on the B1121 Aldeburgh Road.

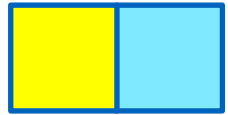
29. For both the eastern and western substations, the reduction in visibility of these elements results in less contrast with the development in Friston in the mid-ground of the view and reduces competition with other focal points such as Friston Church. It also the case that in this view, the colour of the substation buildings can be designed to further reduce their visual effects and that further screening would be evident during the summer months when the existing intervening trees are in leaf.

### 3.4.2 Viewpoints from PRow network to the north and west

#### 3.4.2.1 Viewpoint 5 PRow, near Moor Farm (*Figure 29.17-Update*) (*Appendix 5* of this document)

30. An updated photomontage from Viewpoint 5 near Moor Farm (*Figure 29.17-Update*) (*Appendix 5* of this document) has been provided with two x 53.5° field of view images to illustrate a wider field of view from this viewpoint. The larger of the cable sealing end compounds can be seen to the right-hand side of the view.
31. The reduction in the footprint of each of the onshore substations and their resulting relocation further to the east is evident in Viewpoint 5 (*Figure 29.17-Update* (*Appendix 5* of this document)), in which there is a reduction in the horizontal spread of development away from Friston. The retention of an existing area of established woodland (in a depression to the west of PRow E-354/006/0) is also evident to the west of the western substation, providing greater containment of the substations to the larger-scale agricultural fields near Grove Wood. The refinements to finished ground levels and reduction in substation equipment heights is also evident in the view, in which Grove Wood / Old World Wood and Laurel Covert provide greater containment as a backdrop to the development.
32. Proposed woodland planting to the south of Little Moor Farm will provide effective screening of the eastern substation and the eastern parts of the National Grid substation by Year 15 of operation. Layered screening of intervening proposed hedgerow trees will further break up the view of the National Grid substation and the western substation, particularly during the summer months when the trees are in leaf. Further screening of the larger cable sealing end compound is provided by edge woodland planting around this compound, although its taller infrastructure will be prominent in the view towards Friston and St Mary's Church.

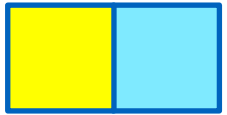




33. The top of the foreground hedgerow in the view is assumed to be below the viewer as presented in the photomontages in **Figure 29.17e-Update (Appendix 5)** of this document), affording an open view over the hedgerow south towards Friston, however it is noted that the hedgerow could be maintained as a high hedgerow during the operational period to provide greater enclosure of the view and the substations experienced by walkers on the PRow at this location.
34. The magnitude of change of the eastern and western substations is assessed as remaining high and significant in the early operational period and remains significant at Year 15 of operation, due to the prominence of the National Grid infrastructure in particular. Even from this close viewpoint from the PRow to the north, the overall scale and massing of the onshore substations has been reduced and the visual containment by existing and proposed planting will reduce the intensity of visual effects experienced by walkers on the PRow during the operational life of the substations.

3.4.2.2 Viewpoint 8 Saxmundham Road (North of Friston) (**Figure 29.20-Update**) (**Appendix 7** of this document)

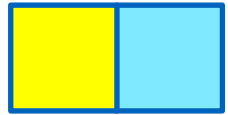
35. Due to the reduction in the footprint of each of the onshore substations and their resulting relocation further to the east, the refinements to finished ground levels, reduction in substation equipment heights and updates to the OLMP further mitigation is provided that reduces the visual effects experienced in views from the west and north-west, such as Viewpoint 8 Saxmundham Road (North of Friston) (**Figure 29.20-Update (Appendix 7)** of this document)).
36. The retention of an existing area of established woodland (in a depression to the west of PRow E-354/006/0) provides additional screening of the western substation in the view from Year 1 of operation (**Figure 29.20b-Update (Appendix 7)** of this document)). Although the magnitude of change of the western substation is assessed as remaining medium-high at Year 1 of operation, there is still a reduction in visual effect due to the combination of the retention of this woodland and the refinements to finished ground levels and reduction in substation equipment heights. The overall scale, massing and height of the infrastructure has been reduced and as such, there is a greater degree of visual containment provided by the existing woodland, including the retained woodland to the foreground and provided by Grove Wood / Old World Wood and Laurel Covert as a backdrop to the development. A similar effect is noted for the eastern substation, which sits lower nestled into the wooded envelope and is assessed as having a medium magnitude of change in the view at Year 1 of operation due to its greater distance and smaller scale in the view.
37. The movement of the northern SuDS basin eastwards towards the National Grid substation (updated **OLEMS Figure 3**) has allowed for additional space for further woodland planting between the access road and this SuDS basin, which



providing further screening in the Year 15 of operation view in Viewpoint 8 Saxmundham Road (North of Friston). Additional woodland planting proposed to the north of the National Grid substation around the cable sealing end compounds also provides additional screening of these sealing end compounds in this view by Year 15 of operation. The magnitude of change of the western substation is assessed as reducing to medium at Year 15 of operation due to the additional screening provided; and is assessed as reducing to medium-low for the eastern substation.

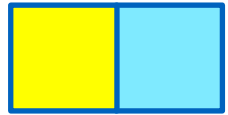
38. The changes in this view are smaller from the west and north-west as the National Grid infrastructure is more prominent, albeit in the context of the large-scale detracting influence of the overhead transmission lines, however even from these locations the overall scale and massing of the onshore substations has been reduced and the visual containment by existing and proposed planting increased during the operational life of the substation. The refined ground levels and reduction in height of the infrastructure is likely to make the mitigation planting measures more effective and quicker to achieve the desired screening.



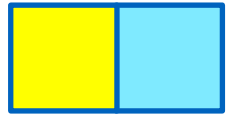


### 3.5 Conclusions

39. The project design refinements including the reduction in the footprint of each of the onshore substations and their resulting relocation, lowering of the finished ground levels and reduction in the maximum heights of the buildings and external equipment, as well updates to the OLMP, are beneficial in reducing the landscape and visual effects of the Projects substations and improving their accommodation in the landscape and views.
40. The assessment highlights that visual effects principally occur on receptors in a contained geographic area on the northern edge of Friston (Church Road area) and the PRoW network to the north of the village, and to a lesser degree from the main area of the settlement, which is set back at greater distance, separated by the village green, areas of common land around St Mary's Church, modern housing on Church Road / Hillcrest and Friston House Wood and the Saxmundham-Aldeburgh Road (B1121).
41. The reduction in visual effects resulting from design refinements are most notable in viewpoints from the Friston area to the south, where a combination of the above design refinements results in a reduction in magnitude and resulting significance of effects in some views. The visual effects of the Projects substations have been reduced from the northern edges of Friston (such as Viewpoint 2 and 4), central areas of Friston (such as Viewpoint 6) and the main settled areas to the south of Friston and its approaches to the south (such as Viewpoint 9). The assessment identifies that the visual effects of the eastern substation in particular, are most reduced from the design refinements, such that the visual effects of the eastern substation are assessed as not significant at Year 1 or Year 15 of operation in all of these views from Friston. Significant project alone and cumulative effects will occur mainly as result of the contribution of the visual effects of the western substation, given its closer proximity and visibility in views from the village however, effects of the western substation and cumulative effects of the Projects substations have still reduced due to design refinements, principally as a result of the reductions in scale and massing of visible elements and increased screening from existing retained vegetation or new planting proposed.
42. The updated OLMP has provided further mitigation of the visual effects of the Projects substations in views from the northern edges of Friston, such as Viewpoint 2 (**Figure 29.14-Update (Appendix 2** of this document)). On balance, and based on consultation feedback, the Applicants prefer the retention and enhancement of character with a layered screening approach to retain the openness to the north of the village, and believe that this is still achievable with some limited areas of additional field edge planting in the smaller scale field enclosures to the north of Friston which provide further screening of the substations.

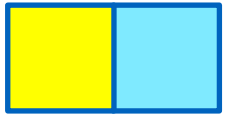


43. The assessment confirms that it has been possible to provide further mitigation of the visual effects of the Projects onshore substations, over the both the short-term during the early part of the operational period and over the longer-term of the operational period, through ongoing good design with respect to the micro-siting, design of substation infrastructure and the OLMP planting proposals to address the local character and specific visual receptors.
44. The changes in visual effects are smaller from the north and north-west as the National Grid infrastructure is more prominent, and there is less scope for planting in constrained areas underneath or in close proximity to the existing overhead transmission lines, however even from these locations the overall scale and massing of the onshore substations has been reduced, and the wooded backdrop of Grove Wood/Laurel Covert provides greater visual containment with the refined ground levels and reduced equipment heights. In addition, the reduction in height is likely to make the proposed mitigation planting measures more effective and, in some instances, quicker to achieve the desired screening. Further planting to provide additional screening to the west of the substations and to north of the overhead line around the sealing end compounds and to the south of Little Moor farm, is considered to provide additional screening in views from the north and west. Even from the close viewpoints from the PRowWs to the north, the overall scale and massing of the onshore substations has been reduced and the visual containment by existing and proposed planting will reduce the intensity of visual effects experienced by walkers on the PRow during the operational life of the substations.
45. Significant, long-term and permanent visual effects are assessed as occurring only on views experienced by people walking on the local PRow network to the north of Friston, residents of scattered rural dwellings near Friston / Fristonmoor and localised parts of the edges of the village of Friston.
46. In many of the views assessed, existing screening by landform, existing vegetation and buildings in the landscape is such that the visual effects of the Projects substations are not significant at Year 1 or Year 15, including: views from the local PRow network to the east and north-east of Friston (as represented by Viewpoint 3, 7 and 12); views from Grove Road to the north of Grove Wood (Viewpoint 3); views from the local road network, including the B1119 (Viewpoint 10) and B1069 (Viewpoint 13); views from other local settlements such as Knodishall Hall (Viewpoint 11) and Coldfair Green (Viewpoint 12); and views from the wider PRow network ('illustrative' viewpoints B, C, D, E and F).
47. After 10-15 years establishment (minimum of 15 years from the start of construction) it is likely that there will be sufficient visibility for the presence of the substation to be evident in certain views, and it is not the design intention, nor is



it realistic, to fully screen the substations from view. It is also the case that the planting will gradually reduce effects over time during its establishment and growth during the operational period; and that effective screening would be provided by the mitigation planting 15 years post planting from a number of viewpoints representing receptors considered in the LVIA (**ES Chapter 29**) and cultural heritage assessment (**Appendix 24.7**) (APP-519). This includes both views where mitigation planting is predicted to either entirely screen views towards the onshore substations or where the visual effects of the infrastructure will reduce in magnitude, as woodland planting grows and provides layered screening during the operational period, such that there is a reduction in the magnitude of change and effects of the substations.

48. The reduction in the footprint of each of the onshore substations and their resulting relocation, refinements to finished ground levels, reduction in substation equipment heights and updates to the OLMP are beneficial in terms of further mitigation provided and reduction in landscape and visual effects, both in terms of effects which are reduced in terms of magnitude, some of which become not significant, but also in terms of reducing the intensity of significant effects, even when the 'significant' effect is not avoided. It is clear from the photomontages in **Appendix 1** that the combination of the design refinements provide further beneficial mitigation and result in reductions in landscape and visual effects of the Projects substations and National grid Infrastructure.
49. The landscape character effects assessment contained within **ES Appendix 29.3** (APP-567) and summarised in **sections 29.6.1.3** and **29.6.2.2** of **ES Chapter 29** (APP-077) fundamentally remains unchanged, however the reduction in the footprint of each of the onshore substations and their resulting relocation (as summarised in the **Project Update Note** (REP2-007) submitted at Deadline 2), further minimises effects on landscape character and the existing landscape framework. This includes retention of an existing area of established woodland (in a depression to the west of PRoW E-354/006/0), which would have previously been removed, and minimising the intrusion of the western substation into the finer grained landscape of smaller enclosures to the south, such that the large majority of the substations area is within the larger scale field system to the north. This movement of substations to the north-east and retention of existing woodland is a benefit in local landscape terms and the reduction in footprint and scale of the infrastructure will reduce the geographic extent and intensity of the landscape effects experienced over the localised geographic area in which significant landscape effects occur.



# Appendix 1: Updated Photomontages

(provided as separate documents)