



East Anglia ONE North and East Anglia TWO Offshore Windfarms

Landscape and Visual Impact Assessment – GIS 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

AIS	Air-Insulated Switchgear
DCO	Development Consent Order
ExA	Examination Authority
GIS	Gas-Insulated Switchgear
LVIA	Landscape and Visual Impact Assessment
NG AIS	National Grid Air-Insulated Switchgear
NG GIS	National Grid Gas-Insulated Switchgear
OLMP	Outline Landscape Mitigation Plan
PD	Procedural Decision
PRoW	Public Right of Way





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

- This Landscape and Visual Impact Assessment GIS Addendum presents an updated substations visual assessment, prepared on behalf of 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 Development Consent Order (DCO) applications (the Applications), and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's (ExA's) procedural decisions on document management of 23rd 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 and highlighted yellow or blue accordingly.

1.1 Purpose

- 4. In recognition of the evolution of design commitments as detailed within the *Substations Design Principles Statement* (an updated version has been submitted at Deadline 11, document reference ExA.AS-6.D11.V3), the purpose of this document is to undertake an updated Landscape and Visual Impact Assessment (LVIA) of the Projects onshore substations and National Grid infrastructure with a Gas-Insulated Switchgear (GIS) substation (herein referred to as 'NG GIS') in comparison to the effects assessed for the National Grid infrastructure with a Air-Insulated Switchgear (AIS) substation (herein referred to as 'NG AIS'), which was assessed as the worst-case Rochdale Envelope in *ES Chapter 29* and the LVIA Addendum submitted at Deadline 4 (REP4-031).
- 5. It focuses on updates to the <u>visual</u> assessment arising from the 14 representative LVIA viewpoints, informed by the updated photomontages contained within **Appendix 1**, which show the NG GIS building with a maximum height of 16m in accordance with the **Substations Design Principles Statement** (an updated version has been submitted at Deadline 11, document reference ExA.AS-6.D11.V3).



- 6. Photomontages from a selection of key LVIA viewpoints that address the Projects' onshore substations and National Grid infrastructure, including the updated substation footprints, estimated finished ground levels, reductions in substation equipment heights and updates to the Outline Landscape Management Plan (OLMP) are provided in *Appendix 1-8*. These photomontages comprise the following:
 - Viewpoint 1: Public Right of Way (PRoW) near Friston House (Figure 29.13-GIS-Update) (Appendix 1 of this document).
 - Viewpoint 2: Friston, Church Road (Figure 29.14-GIS-Update) (Appendix 2 of this document).
 - Viewpoint 3: Grove Road, near Pear Tree Farm (*Figure 29.15-GIS-Update*) (*Appendix 3* of this document).
 - Viewpoint 4: Grove Road, near Church Road (Friston) (Figure 29.16-GIS-Update) (Appendix 4 of this document).
 - Viewpoint 5: PRoW, near Moor Farm (Figure 29.17-GIS-Update) (Appendix 5 of this document).
 - Viewpoint 6: Friston, Village Green (Figure 29.18-GIS-Update) (Appendix 6 of this document).
 - Viewpoint 8: Saxmundham Road (North of Friston) (Figure 29.20-GIS-Update) (Appendix 7 of this document).
 - Viewpoint 9: B1121 Aldeburgh Road, south of Friston (Figure 29.21-GIS-Update) (Appendix 8 of this document).
- 7. Differences in appearance of the NG GIS and NG AIS can be appreciated through comparison of the above NG GIS visualisations provided in *Appendix 1-8* with the corresponding visualisations showing NG AIS in the *LVIA Addendum* (*Appendix 1*) submitted at Deadline 4 (REP4-032 to REP4-039). To enable both the Examining Authority and Interested Parties the opportunity to view the comparisons between the NG GIS and NG AIS easily the NG AIS have also been provided as appendices to this document for comparative reasons. However, it should be noted there have been no amendments to these visualisations showing NG AIS since submission at Deadline 4. These photomontages comprise the following:
 - Viewpoint 1: PRoW near Friston House (*Figure 29.13- AIS Update*) (*Appendix 9* of this document).
 - Viewpoint 2: Friston, Church Road (Figure 29.14 AIS Update) (Appendix 10 of this document).



- Viewpoint 3: Grove Road, near Pear Tree Farm (Figure 29.15 AIS Update)
 (Appendix 11 of this document).
- Viewpoint 4: Grove Road, near Church Road (Friston) (Figure 29.16 AIS Update) (Appendix 12 of this document)
- Viewpoint 5: PRoW, near Moor Farm (Figure 29.17 AIS Update) (Appendix 13 of this document)
- Viewpoint 6: Friston, Village Green (Figure 29.18 AIS Update) (Appendix 14 of this document)
- Viewpoint 8: Saxmundham Road (North of Friston) (Figure 29.20 AIS Update) (Appendix 15 of this document).
- Viewpoint 9: B1121 Aldeburgh Road, south of Friston (Figure 29.21 AIS Update) (Appendix 16 of this document)
- 8. Updated photomontages have not been produced for viewpoints where there are no material changes to the view of the GIS National Grid substation shown in the ES photomontages, for example where existing woodland provides screening of the Projects onshore substations and National Grid infrastructure in the submitted ES versions and will continue to do so. These viewpoints where updated photomontages have not been produced are as follows:
 - Viewpoint 7: PRoW east of Friston (ES Figure 29.19) (APP-430).
 - Viewpoint 10: B1119 (ES Figure 29.22) (APP-433).
 - Viewpoint 11: Knodishall Hall (*ES Figure 29.22*) (APP-434).
 - Viewpoint 12: Knodishall Common (*ES Figure 29.22*) (APP-435).
 - Viewpoint 13: Snape Road (ES Figure 29.23) (APP-436).
 - Viewpoint 14 Grove Road (*ES Figure 29.26*) (APP-437).



2 Updated Visual Assessment

- 9. This section presents updated visual assessments of the Projects onshore substations and National Grid infrastructure (AIS substation) with a GIS National Grid substation.
- 10. The assessment is informed by the updated photomontages contained within *Appendix 1-16*, and considers effects during construction and operation, using the assessment methodology set out in *ES Appendix 29.2* (APP-566).
- 11. The <u>landscape</u> 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.

The potential landscape and visual effects of the onshore substation and National Grid infrastructure with a GIS National Grid substation for each of the Projects are assessed below during construction and operation. Tabular assessment is provided in *Table 2.1* to *Table 3.4* below comparing the assessment of the Projects onshore substations with the AIS National Grid substation made in the *LVIA Addendum* submitted at Deadline 4 (REP4-031) with the effects arising from the Projects onshore substations with the GIS National Grid substation. The columns in the tables below set out both the effect of the Projects substations with the NG AIS substation assessed in the *LVIA Addendum* (REP4-031) and the effects with the NG GIS substation, for East Anglia ONE North alone (*Table 2.1 - Table 2.2*), East Anglia TWO alone (*Table 2.3* and *Table 2.4*) and cumulatively with both projects (*Table 2.5*). For the purposes of the assessment, the western substation is described as the East Anglia ONE North and the eastern substation is East Anglia TWO. Conclusions are provided in *section 3* Both Projects retain the ability to put their onshore substation in either location.



2.1 East Anglia ONE North

2.1.1 Potential Visual Effects During Construction

Table 2.1 East Anglia ONE North Potential Visual Effects during CONSTRUCTION – Onshore Substation and National Grid Infrastructure with a GIS National Grid substation

a GIS National Grid sub	station	LVIA addendum findin	as of EA1N plus NG	LVIA of EA1N plus NG GIS Substation		
		AIS substation (Deadli		EVIA OF EATH PIGG NO GIO GUDGIGION		
Receptor	Sensitivity to change	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 NO CHANGE (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	High NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 2: Friston, Church Road	Walkers: medium-high Residents: high	Medium-high REDUCED (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	Medium-high NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	NO CHANGE (from ES Assessment)	Not significant, long- term and temporary NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, long- term and temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high Motorists: medium	Medium NO CHANGE (from ES Assessment)	Walkers and residents: Significant, short-term, temporary Motorists: Not significant, short-term, temporary	Medium NO DIFFERENCE TO NG AIS	Walkers and residents: Significant, short-term, temporary Motorists: Not significant, short-term, temporary	



		LVIA addendum findir AIS substation (Deadl	•	LVIA of EA1N plus NG GIS Substation		
Receptor	Sensitivity to change	Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)	
			NO CHANGE (from ES Assessment)		NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 5: Public Right of Way, near Moor Farm	Walkers: medium-high Residents: high	High NO CHANGE (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	High NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 6: Friston, Village Green	Residents: high Motorists: medium- high	Negligible REDUCED (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Residents: high Motorists: medium	Medium-high NO CHANGE (from ES Assessment)	Residents: Significant, short- term, temporary Motorists: Significant, short-term, temporary NO CHANGE (from ES Assessment)	Medium-high NO DIFFERENCE TO NG AIS	Residents: Significant, short- term, temporary Motorists: Significant, short-term, temporary NO DIFFERENCE IN SIGNIFICANCE	



		LVIA addendum findin AIS substation (Deadli	•	LVIA of EA1N plus NG GIS Substation		
Receptor	Sensitivity to change	Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)	
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Residents: high Motorists: medium	Low REDUCED (from ES Assessment)	Residents and motorists: Not significant, short-term, temporary REDUCED (from ES Assessment)	NO DIFFERENCE TO NG AIS	Residents and motorists: Not significant, short-term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 10: B1119 Saxmundham Road	Motorists: medium	NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 11: Knodishall Hall	Residents: high	NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 12: Knodishall Common	Walkers: medium-high	Negligible NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible NO CHANGE (from ES Assessment)	Not significant, short- term, temporary	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary	



		LVIA addendum findin AIS substation (Deadl	•	LVIA of EA1N plus NG GIS Substation		
Receptor	Sensitivity to change	Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)	
			NO CHANGE (from ES Assessment)		NO DIFFERENCE IN SIGNIFICANCE	
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High NO CHANGE (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	High NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE	



2.1.2 Potential Visual Effects During Operation

Table 2.2 East Anglia ONE North Potential Visual Effects during OPERATION – Onshore Substation and National Grid Infrastructure with a GIS National Grid substation

		LVIA addendum findings of EA1N plus NG AIS substation (Deadline 4)				LVIA of EA1N plus NG GIS Substation			
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 Figure 29.13-GIS- Update	Walkers: medium-high Residents: high	High NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	High NG GIS is largely screened behind copse woodland but not as fully as NG AIS, due to the taller GIS building and its solid massing being more visible behind the trees than the lower 'framework' of AIS elements resulting in marginally higher visual effect, however the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance, due to the overall influence of the infrastructure, including the more prominent western project substation. NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible The NG GIS and western substation will be completely screened by intervening planting by Year 15. NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 2: Friston, Church Road Figure 29.14-GIS- Update	Walkers: medium-high Residents: high	Medium-high REDUCED (from ES Assessment)	Significant, long- term, temporary NO CHANGE (from ES Assessment)	Medium REDUCED (from ES Assessment)	Significant, long-term, permanent NO CHANGE (from ES Assessment)	Medium-high The upper parts of the NG GIS will be apparent above intervening hedgerows and trees in the immediate context of existing overhead pylons and partially behind the western substation GIS building. The NG GIS effects a slightly narrower portion of the view than the NG AIS, due to its smaller footprint, and presents a simpler, single massed	Significant, long- term, temporary NO DIFFERENCE IN SIGNIFICANCE	Medium The NG GIS substation will be largely screened by intervening planting by Year 15, in combination with the screening provided by the western substation, however the upper part of the GIS building will be visible over the tree tops in the immediate context of existing overhead pylons. The NG GIS effects a narrower portion of the view	Significant, long- term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA1N p	lus NG AIS substa	ation (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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 3: Grove Road, near Pear Tree Farm	Motorists: medium	Low NO CHANGE (from ES Assessment)	Not significant, long-term and temporary	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent	building with less complex form than the AIS 'framework' of elements behind the trees, which is visually comparable to the adjacent western substation GIS building. Overall, the NG GIS results in visibility of an additional GIS building and less external infrastructure in the visible infrastructure layout, but results in only marginal difference in overall visual effect. The magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance. NO DIFFERENCE TO NG AIS Low NO DIFFERENCE TO NG AIS	Not significant, long-term and temporary	than the NG AIS, due to its smaller footprint, and presents a simpler, single massed building with less complex form than the AIS 'framework' of elements behind the trees. Overall, the NG GIS results in visibility of the upper parts an additional GIS building and less external infrastructure in the visible infrastructure layout, but results in only marginal difference in overall visual effect. The magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance. NO DIFFERENCE TO NG AIS Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent
Figure 29.15-GIS- Update			(from ES Assessment)	,	(from ES Assessment)		DIFFERENCE IN SIGNIFICANCE		DIFFERENCE IN SIGNIFICANCE
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high	Medium NO CHANGE (from ES Assessment)	Walkers, cyclists and residents: Significant, long- term, temporary	Medium NO CHANGE (from ES Assessment)	Walkers, cyclists and residents: Significant, long-term, permanent	Medium The NG GIS substation building is not visible in the view as it is screened behind the intervening western project substation. NO DIFFERENCE TO NG AIS	Walkers, cyclists and residents: Significant, long- term, temporary	Medium The NG GIS substation building is not visible in the view as it is screened behind the intervening western project substation.	Walkers, cyclists and residents: Significant, long- term, permanent



		LVIA addendum	findings of EA1N p	lus NG AIS substa	ation (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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)
Figure 29.16-GIS- Update	Motorists: medium		Motorists: Not significant, long- term, temporary NO CHANGE (from ES Assessment)		Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)		Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Motorists: Not significant, long term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 5: Public Right of Way, near Moor Farm Figure 29.17-GIS- Update	Walkers: medium-high Residents: high	High NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium NO CHANGE (from ES Assessment)	Significant, long-term, permanent NO CHANGE (from ES Assessment)	High The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint having a reduced spread and more compact arrangement, such that more of the view towards Grove Wood remains open between the two sealing end compounds. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of elements, resulting in a simpler, less dense view of the western substation. The additional height and massing of the NG GIS is visually contained by the backcloth and height of Grove Wood behind it. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the	Significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Layered screening of intervening proposed hedgerow trees will soften the view of the NG GIS substation, particularly during the summer months when the trees are in leaf, with the NG GIS well contained within the existing and proposed landscape framework. Further screening of the larger cable sealing end compound is provided by planting around this compound, although its taller infrastructure will be prominent in the view towards Friston. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed as the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer sealing end compounds and overhead pylons.	Significant, long term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA1N p	lus NG AIS substa	ntion (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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)
						infrastructure, including the closer sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS		NO DIFFERENCE TO NG AIS	
Viewpoint 6: Friston, Village Green Figure 29.18-GIS- Update	Residents: high Motorists: medium-high	Negligible REDUCED (from ES Assessment)	Not significant, long-term, temporary	Negligible REDUCED (from ES Assessment)	Not significant, long-term, permanent	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 8: B1121 Saxmundha m Road, north of Friston Figure 29.20-GIS- Update	Residents: high Motorists: medium	Medium-high NO CHANGE (from ES Assessment)	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium NO CHANGE (from ES Assessment)	Residents: Significant, long-term, permanent Motorists: Not significant, long-term, permanent	Medium-high Both the NG GIS and AIS infrastructure is more prominent in this view, in the context of the large-scale detracting influence of the overhead transmission lines, however the NG GIS effects a smaller area of land than the NG AIS, with a reduced spread and slightly more compact arrangement from this viewing angle, such that there is slightly less development in front of Laurel Covert. The NG GIS presents a simpler,	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Proposed planting will provide some screening and softening of the changes associated with the onshore infrastructure by Year 15 of operation. The visual containment by existing and proposed planting will increase during the operational life of the substations, particularly around the sealing end compounds and in the area to the fore of the NG GIS and western substation,	Residents: Significant, long-term, permanent Motorists: Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA1N p	lus NG AIS substa	ation (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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)
					NO CHANGE (from ES Assessment)	single massed building with less complex form than the AIS 'framework' of elements. The additional height and massing of the NG GIS is largely contained by the backcloth and height of Laurel Covert behind and it is viewed 'through' the foreground electrical pylon. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the sealing end compounds and overhead pylons.		reducing the magnitude of change. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS. NO DIFFERENCE TO NG AIS	
Viewpoint 9: B1121 Aldeburgh Road, south of Friston Figure 29.21-GIS- Update	Residents: high Motorists: medium	Low REDUCED (from ES Assessment)	Residents and motorists: Not significant, long-term, temporary REDUCED (from ES Assessment)	Low REDUCED (from ES Assessment)	Residents and motorists: Not significant, long-term, permanent REDUCED (from ES Assessment)	The NG GIS is almost entirely screened by intervening buildings and vegetation, however the upper part of the NG GIS will be partially apparent behind intervening treed skyline and residential properties of Friston, whereas the lower NG AIS is not visible. The upper part of the NG GIS is partially screened by trees, which are likely to provide greater screening when in leaf and is behind the tops of the harmonic filters of the western substation, which effect the same part of the view. It	Residents and motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	The effect does not change after 15 years as the proposed planting is not visible and will not screen the very top part of the NG GIS building which remains visible, although the growth of existing tree cover is likely to further reduce the effect over this period of time. NO DIFFERENCE TO NG AIS	Residents and motorists: Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA1N p	lus NG AIS substa	ation (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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)
						is also viewed in the context of the large-scale overhead pylons and high-voltage cables that form the backdrop to Friston in this view. The visible upper parts of the NG GIS building is viewed as a further element in the backdrop to Friston village, behind the tops of the harmonic filters of the western substation, and in the context of the built environment of the village, including St Mary's Church. The additional visible height and massing of the NG GIS results in marginally higher visual effect than the NG AIS, however on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the sealing end compounds and overhead pylons.			
Viewpoint 10: B1119 Saxmundha m Road	Motorists: medium	NO CHANGE (from ES	Not significant, long-term, temporary	NO CHANGE (from ES	Not significant, long-term, permanent	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent
		Assessment)	NO CHANGE (from ES Assessment)	Assessment)	NO CHANGE (from ES Assessment)		NO DIFFERENCE IN SIGNIFICANCE		NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 11:	Residents: high	Low	Not significant, long-term, temporary	Low	Not significant, long-term, permanent	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent



		LVIA addendum	findings of EA1N p	lus NG AIS substa	tion (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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)
Knodishall Hall		NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)		NO DIFFERENCE IN SIGNIFICANCE		NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 12: Knodishall Common	Walkers: medium-high	NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High NO CHANGE (from ES Assessnt)	Significant, long- term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	High The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint having a reduced spread and more compact arrangement next to the overhead pylons, such that more of the view towards Little Moor Farm remains open with a larger space retained between the NG GIS and Laurel Covert to the east. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of	Significant, long- term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible The NG GIS and eastern substation will be completely screened by intervening planting by Year 15. NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA1N p	olus NG AIS substa	tion (Deadline 4)	LVIA of EA1N plus NG GIS Substation			
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)
						elements, however the massing of the NG GIS building is higher the buildings associated with the NG AIS. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer western project substation.			



2.2 East Anglia TWO

2.2.1 Potential Visual Effects During Construction

Table 2.3 East Anglia TWO Potential Visual Effects during CONSTRUCTION – Onshore Substation and National Grid Infrastructure with a GIS National Grid substation

		LVIA addendum findin substation (Deadline 4	gs of EA2 plus NG AIS	LVIA of EA2 plus NG 0	GIS Substation
Receptor	Sensitivity to change	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	Medium-high REDUCED (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	Medium-high NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 2: Friston, Church Road	Walkers: medium-high Residents: high	Medium REDUCED (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	Medium NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	NO CHANGE (from ES Assessment)	Not significant, long- term and temporary NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, long- term and temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 4: Friston, Grove Road	Walkers: medium-high Residents: high Motorists: medium	Low REDUCED (from ES Assessment)	Not significant, long- term and temporary REDUCED (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, long- term and temporary NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum findin substation (Deadline 4	gs of EA2 plus NG AIS	LVIA of EA2 plus NG 0	GIS Substation
Receptor	Sensitivity to change	Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
Viewpoint 5: Public Right of Way, near Moor Farm	Walkers: medium-high Residents: high	High NO CHANGE (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)	High NO DIFFERENCE TO NG AIS	Significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 6: Friston, Village Green	Residents: high Motorists: medium- high	NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 8: B1121 Saxmundham Road, north of Friston	Residents: high Motorists: medium	Medium-high NO CHANGE (from ES Assessment)	Residents: Significant, short-term, temporary Motorists: Significant, short-term, temporary NO CHANGE (from ES Assessment)	Medium-high NO DIFFERENCE TO NG AIS	Residents: Significant, short- term, temporary Motorists: Significant, short-term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 9: B1121 Aldeburgh Road, south of Friston	Residents: high Motorists: medium	Low	Residents and motorists: Not	Low	Residents and motorists: Not



		LVIA addendum findin substation (Deadline 4	gs of EA2 plus NG AIS	LVIA of EA2 plus NG 0	GIS Substation
Receptor	Sensitivity to change	Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)
		REDUCED (from ES Assessment)	significant, short- term, temporary REDUCED (from ES Assessment)	NO DIFFERENCE TO NG AIS	significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 10: B1119 Saxmundham Road	Motorists: medium	Medium-low NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Medium-low NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 11: Knodishall Hall	Residents: high	NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 12: Knodishall Common	Walkers: medium-high	Negligible NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible NO CHANGE (from ES Assessment)	Not significant, short- term, temporary NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, short- term, temporary NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum findin substation (Deadline 4	gs of EA2 plus NG AIS	LVIA of EA2 plus NG GIS Substation		
Receptor	Sensitivity to change	Magnitude of Change (construction)	Significance of Effect (construction)	Magnitude of Change (construction)	Significance of Effect (construction)	
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High NO CHANGE (from ES Assessment)	Significant, short- term, temporary NO CHANGE (from ES Assessment)			



2.2.2 Potential Visual Effects During Operation

Table 2.4 Fast Anglia TWO Potential Visual Effects during OPERATION – Onshore Substation and National Grid Infrastructure with a GIS National Grid substation

Table 2.4 East An	glia TWO Poter			N – Onshore Substa s NG AIS substation		rid Infrastructure with a GIS National Gri	d substation		
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 Figure 29.13- GIS-Update	Walkers: medium-high Residents: high	Medium-high REDUCED (from ES Assessment)	Significant, long- term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Medium-high NG GIS is largely screened behind copse woodland but not as fully as NG AIS, due to the taller GIS building and its solid massing being more visible behind the trees than the lower 'framework' of AIS elements resulting in marginally higher visual effect, however the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance. NO DIFFERENCE TO NG AIS	Significant, long- term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible The NG GIS and eastern substation will be completely screened by intervening planting by Year 15. NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 2: Friston, Church Road Figure 29.14- GIS-Update	Walkers: medium-high Residents: high	Medium REDUCED (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Low REDUCED (from ES Assessment)	Not significant, long-term, permanent REDUCED (from ES Assessment)	The upper parts of the NG GIS will be apparent above intervening hedgerows and trees in the immediate context of existing overhead pylons. The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint, and presents a simpler, single massed building with less complex form than the AIS 'framework' of elements behind the trees. The additional height and solid massing of the NG GIS results in marginally higher visibility and visual effect, however the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance. NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	The NG GIS substation will be largely screened by intervening planting by Year 15, however the upper part of the GIS building will be visible over the tree tops, in the immediate context of existing overhead pylons. The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint, and presents a simpler, single massed building with less complex form than the AIS 'framework' of elements behind the trees. The additional height and solid massing of the NG GIS results in marginally higher visibility and visual effect, however the magnitude of change is considered to be the same for both NG GIS and AIS on balance.	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 3: Grove Road, near Pear Tree Farm	Motorists: medium	Low	Not significant, long-term and temporary	Negligible	Not significant, long-term, permanent	NO DIFFERENCE TO NG AIS	Not significant, long-term and temporary	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent



		LVIA addendum	findings of EA2 plu	s NG AIS substatio	n (Deadline 4)	LVIA of EA2 plus NG GIS Substation			
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)
Figure 29.15- GIS-Update		NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)		NO DIFFERENCE IN SIGNIFICANCE		NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 4: Friston, Grove Road Figure 29.16- GIS-Update	Walkers: medium-high Residents: high Motorists: medium	REDUCED (from ES Assessment)	Walkers and residents: Not significant, long-term, temporary Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Low to negligible REDUCED (from ES Assessment)	Not significant, long-term, permanent REDUCED (from ES Assessment)	The upper parts of the NG GIS will be partially visible through intervening hedgerows and trees in the immediate context of existing overhead pylons. The sold massing of the NG GIS buildings is marginally more visible through the trees however, it effects a narrower portion of the view than the NG AIS due to its smaller footprint, and presents a simpler, single massed building with less complex form than the AIS 'framework' of elements behind the trees. As a result, the NG GIS results in marginally lower visual effect, however the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance.	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Low to negligible The NG GIS substation will be largely screened by intervening planting by Year 15. NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 5: Public Right of Way, near Moor Farm Figure 29.17- GIS-Update	Walkers: medium-high Residents: high	High NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium NO CHANGE (from ES Assessment)	Significant, long-term, permanent NO CHANGE (from ES Assessment)	High The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint having a reduced spread and more compact arrangement contained within the backcloth of Grove Wood, such that more of the view towards Friston remains open with a larger space retained between the NG GIS and the sealing end compound/pylon to the west. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of elements, resulting in a simpler, less dense view of the eastern substation. The additional height and massing of the NG GIS is visually contained by the backcloth and height of Grove Wood behind it. Although the NG GIS results in some reduction in the	Significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Proposed woodland planting to the south of Little Moor Farm will provide effective screening of the eastern substation by Year 15 of operation. Layered screening of intervening proposed hedgerow trees will further soften the view of the NG GIS substation, particularly during the summer months when the trees are in leaf, with the NG GIS well contained within the existing and proposed landscape framework. Further screening of the larger cable sealing end compound is provided by planting around this compound, although its taller infrastructure will be prominent in the view towards Friston.	Significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA2 plu	ıs NG AIS substatioı	n (Deadline 4)	LVIA of EA2 plus NG GIS Substation			
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)
						visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS		Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed as the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS	
Viewpoint 6: Friston, Village Green Figure 29.18- GIS-Update	Residents: high Motorists: medium-high	NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible REDUCED (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 7: Public Right of Way, east of Friston	Walkers: medium-high	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 8: B1121 Saxmundham Road, north of Friston Figure 29.20- GIS-Update	Residents: high Motorists: medium	Medium NO CHANGE (from ES Assessment)	Residents: Significant, long- term, temporary Motorists: Not significant, long- term, temporary NO CHANGE (from ES Assessment)	Medium-low NO CHANGE (from ES Assessment)	Residents: Significant, long- term, permanent Motorists: Not significant, long- term, permanent NO CHANGE (from ES Assessment)	Both the NG GIS and AIS infrastructure is more prominent in this view, in the context of the large-scale detracting influence of the overhead transmission lines, however the NG GIS effects a smaller area of land than the NG AIS, with a reduced spread and slightly more compact arrangement from this viewing angle, such that there is slightly less development in front of Laurel Covert. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of elements. The additional height and massing of the NG GIS is largely contained by the backcloth and height of Laurel Covert	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Medium-low Proposed planting will provide some screening and softening of the changes associated with the onshore infrastructure by Year 15 of operation. The visual containment by existing and proposed planting will increase during the operational life of the substations, particularly around the sealing end compounds and in the area to the fore of the NG GIS and eastern substation, reducing the magnitude of change. Although the NG GIS results in some reduction in the visual effect, on balance the	Residents: Significant, long- term, permanent Motorists: Not significant, long- term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA2 plu	s NG AIS substation	າ (Deadline 4)	LVIA of EA2 plus NG GIS Substation			
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)
						behind and it is viewed 'through' the foreground electrical pylon. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS		magnitude of change is considered similar and is assessed the same for both NG GIS and AIS. NO DIFFERENCE TO NG AIS	
Viewpoint 9: B1121 Aldeburgh Road, south of Friston Figure 29.21- GIS-Update	Residents: high Motorists: medium	REDUCED (from ES Assessment)	Residents and motorists: Not significant, long-term, temporary REDUCED (from ES Assessment)	Low REDUCED (from ES Assessment)	Residents and motorists: Not significant, long-term, permanent REDUCED (from ES Assessment)	The NG GIS is almost entirely screened by intervening buildings and vegetation, however the upper part of the NG GIS will be partially apparent behind intervening treed skyline and residential properties of Friston, whereas the lower NG AIS is entirely not visible. The upper part of the NG GIS is partially screened by trees, which are likely to provide greater screening when in leaf. It is also viewed in the context of the large-scale overhead pylons and high-voltage cables that form the backdrop to Friston in this view. The visible upper parts of the NG GIS building are viewed as a further element in the backdrop to Friston village and in the context of the built environment of the village, including St Mary's Church. The additional visible height and massing of the NG GIS results in marginally higher visual effect than the NG AIS, however on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS	Residents and motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	The effect does not change after 15 years as the proposed planting is not visible and will not screen the very top part of the NG GIS building which remains visible, although the growth of existing tree cover is likely to further reduce the effect over this period of time. NO DIFFERENCE TO NG AIS	Residents and motorists: Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA2 plu	ıs NG AIS substatio	n (Deadline 4)	LVIA of EA2 plus NG GIS Substation			
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 10: B1119 Saxmundham Road	Motorists: medium	Medium-low NO CHANGE (from ES Assessment)	Not significant, long-term, temporary	NO CHANGE (from ES Assessment)	Not significant, long-term, permanent	Medium-low NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 11: Knodishall Hall	Residents: high	NO CHANGE (from ES Assessment)	Not significant, long-term, temporary	NO CHANGE (from ES Assessment)	Not significant, long-term, permanent	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 12: Knodishall Common	Walkers: medium-high	Low NO CHANGE (from ES Assessment)	Not significant, long-term, temporary	Low NO CHANGE (from ES Assessment)	Not significant, long-term, permanent	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 13: B1069 Snape Road	Motorists: medium	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, temporary	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 14: Grove Road	Motorists: medium Cyclists: medium-high	High NO CHANGE (from ES Assessment)	Significant, long-term, temporary	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent	High The NG GIS is almost entirely screened by the intervening eastern project substation, resulting in a slight reduction in the amount of visible infrastructure compared to the NG AIS – the external infrastructure of the NG AIS is partially visible through and beyond the eastern substation. On balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, particularly the eastern	Significant, long- term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible The NG GIS and eastern substation will be completely screened by intervening planting by Year 15. NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



		LVIA addendum	findings of EA2 plu	ıs NG AIS substatio	on (Deadline 4)	LVIA of EA2 plus NG GIS Substation						
Receptor	Sensitivity to change	Sensitivity to change (operation, first year of operational phase) Magnitude of Change (operation, first year of operational phase) Significance of Change (operation, first year of operational phase) Magnitude of Change (operation, first year of operational phase) Significance of Change (operation, 15 years post construction) 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)					
						project substation which will occupy the foreground of the view. NO DIFFERENCE TO NG AIS						



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

Table 2.5 Cum			st Anglia ONE No Nand EA2 plus NG			ct during OPERATION – Onshore Substation and National Grid Infrastructure with a GIS National Grid substation LVIA of EA1N and EA2 plus NG GIS Substation				
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 Figure 29.13-GIS- Update	High magnitude Significant, medium-term, temporary NO CHANGE (from ES Assessment)	High NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	High magnitude Significant, medium-term, temporary NO DIFFERENCE TO NG AIS	High NG GIS is largely screened behind copse woodland but not as fully as NG AIS, due to the taller GIS building and its solid massing being more visible behind the trees than the lower 'framework' of AIS elements resulting in marginally higher visual effect, however the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance, due to the overall influence of the infrastructure, including the more prominent western project substation. NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible The NG GIS and eastern substation will be completely screened by intervening planting by Year 15. NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 2: Friston, Church Road Figure 29.14-GIS- Update	Medium-high magnitude Significant, medium-term, temporary REDUCED (from ES Assessment)	Medium-high REDUCED (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium REDUCED (from ES Assessment)	Significant, long-term, permanent NO CHANGE (from ES Assessment)	Medium-high magnitude Significant, medium-term, temporary NO DIFFERENCE TO NG AIS	Medium-high The upper parts of the NG GIS will be apparent above intervening hedgerows and trees in the immediate context of existing overhead pylons and partially behind the western substation GIS building. The NG GIS effects a slightly narrower portion of the view than the NG AIS, due to its smaller footprint, and presents a simpler, single massed building with less complex form than the AIS 'framework' of elements behind the trees, which is visually comparable to the	Significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Medium The NG GIS substation will be largely screened by intervening planting by Year 15, in combination with the screening provided by the western project GIS substation, however the upper part of the GIS building will be visible over the tree tops in the immediate context of existing overhead pylons. The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint, and presents a simpler, single massed building with less	Significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



	LVIA addendum	findings of EA1	N and EA2 plus NG	AIS substation (I	Deadline 4)	LVIA of EA1N and E	EA2 plus NG GIS Substation			
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)
							adjacent western substation GIS building. Overall, the NG GIS results in visibility of an additional GIS building and less external infrastructure in the visible infrastructure layout, but results in only marginal difference in overall visual effect. The magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance. NO DIFFERENCE TO NG AIS		complex form than the AIS 'framework' of elements behind the trees. Overall, the NG GIS results in visibility of the upper parts an additional GIS building and less external infrastructure in the visible infrastructure layout, but results in only marginal difference in overall visual effect. The magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance. NO DIFFERENCE TO NG AIS	
Viewpoint 3: Grove Road, near Pear Tree Farm Figure 29.15-GIS- Update	Scoped out as Not significant NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	Not significant, long-term and temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Scoped out as Not significant NO DIFFERENCE TO NG AIS	NO DIFFERENCE TO NG AIS	Not significant, long-term and temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 4: Friston, Grove Road Figure 29.16-GIS- Update	Medium magnitude Significant, medium-term, temporary NO CHANGE (from ES Assessment)	Medium NO CHANGE (from ES Assessment)	Walkers, cyclists and residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium NO CHANGE (from ES Assessment)	Walkers, cyclists and residents: Significant, long-term, permanent Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium magnitude Significant, medium-term, temporary NO DIFFERENCE TO NG AIS	Medium The NG GIS substation building is not visible in the view as it is screened behind the intervening western project substation. NO DIFFERENCE TO NG AIS	Walkers, cyclists and residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Medium The NG GIS substation building is not visible in the view as it is screened behind the intervening western project substation. NO DIFFERENCE TO NG AIS	Walkers, cyclists and residents: Significant, long-term, permanent Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 5: Public Right	High magnitude	High	Significant, long-term, temporary	Medium	Significant, long-term, permanent	High magnitude	High The NG GIS effects a narrower portion of the view	Significant, long- term, temporary	Medium Proposed woodland planting to the south of Little Moor	Significant, long- term, permanent



	LVIA addendum	findings of EA1N	N and EA2 plus NG	AIS substation (I	Deadline 4)	LVIA of EA1N and E	EA2 plus NG GIS Substation				
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)	
of Way, near Moor Farm Figure 29.17-GIS- Update	Significant, medium-term, temporary NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	Significant, medium-term, temporary NO DIFFERENCE TO NG AIS	than the NG AIS, due to its smaller footprint having a reduced spread and more compact arrangement. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of elements, resulting in a simpler, less dense view of the western and eastern substation beyond and more of the Grove Wood backdrop becoming visible. The additional height and massing of the NG GIS is visually contained by the backcloth and height of Grove Wood behind it. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS	NODIFFERENCE	Farm will provide effective screening of the eastern substation by Year 15 of operation. Layered screening of intervening proposed hedgerow trees will also further soften the view of the NG GIS substation, particularly during the summer months when the trees are in leaf, with the NG GIS well contained within the existing and proposed landscape framework. Further screening of the larger cable sealing end compound is provided by planting around this compound, although its taller infrastructure will be prominent in the view towards Friston. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed as the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS	NO DIFFERENCE	
Viewpoint 6: Friston, Village Green Figure 29.18-GIS- Update	Not significant NO CHANGE (from ES Assessment)	Negligible REDUCED (from ES Assessment)	Not significant, long-term, temporary	Negligible REDUCED (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Not significant NO DIFFERENCE TO NG AIS	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE	



	LVIA addendum	findings of EA1	N and EA2 plus NG	i AIS substation ([Deadline 4)	LVIA of EA1N and E	EA2 plus NG GIS Substation			
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	Not significant NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Not significant NO DIFFERENCE TO NG AIS	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 8: B1121 Saxmundha m Road, north of Friston Figure 29.20-GIS- Update	Medium-high magnitude Significant, medium-term, temporary NO CHANGE (from ES Assessment)	Medium-high NO CHANGE (from ES Assessment)	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	Residents: Significant, long-term, permanent Motorists: Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Medium-high magnitude Significant, medium-term, temporary NO DIFFERENCE TO NG AIS	Both the NG GIS and AIS infrastructure is more prominent in this view, in the context of the large-scale detracting influence of the overhead transmission lines, however the NG GIS effects a smaller area of land than the NG AIS, with a reduced spread and slightly more compact arrangement from this viewing angle, such that there is slightly less development in front of Laurel Covert. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of elements. The additional height and massing of the NG GIS is largely contained by the backcloth and height of Laurel Covert behind and it is viewed 'through' the foreground electrical pylon. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Proposed planting will provide some screening and softening of the changes associated with the onshore infrastructure by Year 15 of operation. The visual containment by existing and proposed planting will increase during the operational life of the substations, particularly around the sealing end compounds and in the area to the fore of the NG GIS and project substations, reducing the magnitude of change. Although the NG GIS results in some reduction in the visual effect, on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS. NO DIFFERENCE TO NG AIS	Residents: Significant, long-term, permanent Motorists: Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



	LVIA addendum	findings of EA1N	N and EA2 plus NG	i AIS substation ([Deadline 4)	LVIA of EA1N and I	EA2 plus NG GIS Substation			
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)
							sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS			
Viewpoint 9: B1121 Aldeburgh Road, south of Friston Figure 29.21-GIS- Update	Medium-low magnitude Residents: Significant, medium-term, temporary Motorists: Not significant, medium-term, temporary REDUCED (from ES Assessment)	Medium-low REDUCED (from ES Assessment)	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Medium-low REDUCED (from ES Assessment)	Residents: Significant, long-term, permanent Motorists: Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Medium-low magnitude Residents: Significant, medium-term, temporary Motorists: Not significant, medium-term, temporary NO DIFFERENCE TO NG AIS	The NG GIS is almost entirely screened by intervening buildings and vegetation, however the upper part of the NG GIS will be partially apparent behind intervening treed skyline and residential properties of Friston, whereas the lower NG AIS is entirely not visible. The upper part of the NG GIS is partially screened by trees, which are likely to provide greater screening when in leaf and is behind the tops of the harmonic filters of the western substation, which effect the same part of the view. It is also viewed in the context of the large-scale overhead pylons and high-voltage cables that form the backdrop to Friston in this view. The visible upper parts of the NG GIS building is viewed as a further element in the backdrop to Friston village, behind the tops of the harmonic filters of the western substation, and in the context of the built environment of the village, including St Mary's Church. The additional visible height and massing of the NG GIS results in marginally higher	Residents: Significant, long-term, temporary Motorists: Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Medium-low The effect does not change after 15 years as the proposed planting is not visible and will not screen the very top part of the NG GIS building which remains visible, although the growth of existing tree cover is likely to further reduce the effect over this period of time. NO DIFFERENCE TO NG AIS	Residents: Significant, long-term, permanent Motorists: Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



	LVIA addendum	findings of EA1N	N and EA2 plus NG	AIS substation ([Deadline 4)	LVIA of EA1N and E	EA2 plus NG GIS Substation			
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)
							visual effect than the NG AIS, however on balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the sealing end compounds and overhead pylons. NO DIFFERENCE TO NG AIS			
Viewpoint 10: B1119 Saxmundha m Road	Not significant NO CHANGE (from ES Assessment)	Low NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Not significant NO DIFFERENCE TO NG AIS	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 11: Knodishall Hall	Not significant NO CHANGE (from ES Assessment)	Low NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Low NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Not significant NO DIFFERENCE TO NG AIS	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 12: Knodishall Common	Not significant NO CHANGE (from ES Assessment)	Low NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Not significant NO DIFFERENCE TO NG AIS	NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE
Viewpoint 13: B1069 Snape Road	Not significant NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	Not significant NO DIFFERENCE TO NG AIS	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE



	LVIA addendum	findings of EA1	N and EA2 plus NG	S AIS substation (Deadline 4)	LVIA of EA1N and EA2 plus NG GIS Substation						
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 14: Grove Road	High magnitude Significant, medium-term, temporary NO CHANGE (from ES Assessment)	High NO CHANGE (from ES Assessment)	Significant, long-term, temporary NO CHANGE (from ES Assessment)	Negligible NO CHANGE (from ES Assessment)	Not significant, long-term, permanent NO CHANGE (from ES Assessment)	High magnitude Significant, medium-term, temporary NO DIFFERENCE TO NG AIS	High The NG GIS is almost entirely screened by the intervening eastern project substation, resulting in a slight reduction in the amount of visible infrastructure compared to the NG AIS, of which the external infrastructure is partially visible through the project substations and contributes to a greater visual density of elements than the NG GIS. On balance the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, particularly the eastern project substation which will occupy the foreground of the view. NO DIFFERENCE TO NG AIS	Significant, long-term, temporary NO DIFFERENCE IN SIGNIFICANCE	Negligible NO DIFFERENCE TO NG AIS	Not significant, long-term, permanent NO DIFFERENCE IN SIGNIFICANCE		





3 Conclusions

- 12. The LVIA GIS Addendum assessment identifies that there is no material difference in the assessed levels of visual magnitude of change or significance of visual effects resulting from the NG GIS compared to the NG AIS during construction and operation. Although there are clearly differences in the appearance of the NG GIS compared to the NG AIS when seen in local views, these differences in appearance are not considered to be of sufficient scale to change the magnitude or significance levels assessed for the NG AIS. These differences are often relatively slight overall and not material to the impact significance, since the differences in appearance are often viewed in the context of the overall influence of the infrastructure, including the sealing end compounds, overhead pylons and the western and eastern project substations.
- 13. Although no material difference in impact significance has been assessed, it has been identified that there are some clear differences in the visual appearance and aesthetics of the NG GIS compared to the NG AIS, which are evident from a limited number of local viewpoints and contribute to some differences in visual influence and appearance experienced from different viewing directions.
- 14. Differences in appearance of the NG GIS ad NG AIS can be appreciated through comparison of the above GIS visualisations provided in *Appendix 1-16* with the corresponding visualisations showing NG AIS in the *LVIA Addendum* (*Appendix 1*) submitted at Deadline 4 (REP4-032 to REP4-039).
- 15. In views from the Friston area to the south, such as from the northern edges of Friston (Viewpoint 2), the upper parts of the NG GIS will be apparent at Year 1 and Year 15 above intervening hedgerows and trees, resulting in visibility of an additional GIS building yet less external infrastructure in the visible infrastructure layout. The NG GIS effects a slightly narrower portion of the view than the NG AIS, due to its smaller footprint, and presents a simpler, single massed building with less complex form than the AIS 'framework' of elements behind the trees. Overall, there is in only marginal difference in the visual effect and the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS on balance.
- 16. In views from the approaches to Friston to the south (such as Viewpoint 9) the NG GIS is almost entirely screened by intervening buildings and vegetation, however the upper part of the NG GIS will be partially apparent behind intervening treed skyline and residential properties of Friston, whereas the lower NG AIS is entirely not visible. The additional visible height and massing of the NG GIS results in marginally higher visual effect than the NG AIS, however on





balance the magnitude of change is considered similar, as the upper part of the NG GIS will be partially screened by trees (that are likely to provide greater screening when in leaf) and is located behind the tops of the harmonic filters of the western substation, such that the magnitude of change is assessed the same for both NG GIS and AIS due to the influence of other visible infrastructure.

- 17. In views from the north (such as Viewpoint 5) the National Grid infrastructure is more prominent and the differences in appearance of the NG GIS and NG AIS more apparent, and there is less scope for planting in constrained areas underneath or in close proximity to the existing overhead transmission lines to screen the NG infrastructure. The NG GIS effects a narrower portion of the view than the NG AIS, due to its smaller footprint having a reduced spread and more compact arrangement, such that more of the view towards Friston and Grove Wood remains open. The NG GIS presents a simpler, single massed building with less complex form than the AIS 'framework' of elements, resulting in a simpler, less dense view of the eastern and western substations beyond. Although the additional height and massing of the NG GIS is notable, it is visually contained by the backcloth and height of Grove Wood behind it. On balance therefore, the NG GIS is considered to present some reduction in visual effect in views from the north, however the magnitude of change is considered similar and is assessed the same for both NG GIS and AIS due to the overall influence of the infrastructure, including the closer sealing end compounds and overhead pylons.
- 18. The assessment therefore identifies some slight reduction in visual influence arising from the NG GIS compared to the NG AIS from close in views from the north, such as from the local PRoW network and approaches to Friston from the north on the B1121 Saxmundham Road, however these are offset to some degree by a slight increase in visual influence arising from the NG GIS in views from the Friston area to the south, where the upper parts of the taller NG GIS building will be visible over the intervening skyline of the village (in Viewpoint 9) or over the top of proposed planting (in Viewpoint 2), from where the NG AIS will generally be less visible and more screened due to its lower height. These differences are not considered material in terms of the assessed levels of visual magnitude of change or significance however, the NG GIS and NG AIS do present a different aesthetic, summarised as follows:
 - The NG GIS substation requires a smaller footprint with less land-take compared to the NG AIS footprint. Although the NG GIS requires a taller building the containment of switchgear indoors presents a simpler, less complex (albeit more solid) form.
 - The NG GIS substation is more visible from parts of Friston due to the higher height of the NG GIS substation building.





- Woodland planting would, from certain views, screen the lower heights of the NG AIS substation compared to the more visible upper parts of the taller NG GIS building. The taller NG GIS building is however well backclothed and visually contained by the existing mature woodland at Laurel Cover/Grove Wood in local views.
- NG GIS buildings have more scope to be designed through their form, and use of colour and materials of the building to reduce its visual influence (e.g. when seen against woodland), or to be in keeping with large agricultural buildings in the local vernacular, or lighter upper elements to reduce contrast with the sky.
- The appearance of the external electrical infrastructure of the NG AIS substation presents a more complex form over a wider spread, albeit skeletal in form. The framework of elements that combine to present more visual complexity than the single mass of a NG GIS building.
- The buildings within the NG AIS substation are significantly lower in height than the single NG GIS building, although there would be a requirement for several smaller buildings within the infrastructure layout.
- The external NG AIS electrical infrastructure includes elements that would generally be at heights not dissimilar to the NG GIS building albeit will be skeletal in form.
- The NG AIS substation requires a larger footprint than the NG GIS substation, therefore requiring a larger area of agricultural land, resulting in a higher change to local landscape character due to its wider spread.
- 19. The <u>landscape character</u> 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 for both NG GIS and NG AIS, however the reduction in the footprint of the NG GIS, is considered to further reduce effects on landscape character and the existing landscape framework to a limited extent. The smaller footprint of the NG GIS is a benefit in local landscape terms and the reduction in footprint will contribute some slight reductions to the geographic extent and intensity of the landscape effects experienced over the localised geographic area in which significant landscape effects occur.



Appendix: Updated Photomontages

(provided as separate documents)