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# Bramford to Twinstead Reinforcement

## Volume 7: Other Documents

Document 7.5.2 (B): CEMP Appendix B – Register of Environmental  
Actions and Commitments (REAC)

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## Version History

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Date	Issue	Status	Description / Changes
April 2023	A	Final	For DCO submission
October 2023	B	Final	Update in response to Action Point 20 in Action Points from Issue Specific Hearing 14 September 2023 [EV-018] and other updates identified in responses received at Deadline 1 and 2.

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# 1. Introduction

## 1.1 Overview

- 1.1.1 National Grid Electricity Transmission plc (here on referred to as National Grid) has made an application for development consent to reinforce the transmission network between Bramford Substation in Suffolk, and Twinstead Tee in Essex. The Bramford to Twinstead Reinforcement ('the project') will be achieved by the construction and operation of a new electricity transmission line over a distance of approximately 29km comprising of overhead lines, underground cables and grid supply point substation. It also includes the removal of 25km of the existing distribution network, 2km of the 400kV overhead line transmission network and various ancillary works.

## 1.2 Purpose of the Register of Environmental Actions and Commitments

- 1.2.1 This Register of Environmental Actions and Commitments (REAC) has been produced to record the commitments made by National Grid during the iterative development of the designs on the project. It includes embedded measures, which are typically intrinsic to the design submitted as part of the application for development consent. It also includes the additional mitigation measures that have been identified through the environmental impact assessment (EIA) to avoid or reduce likely significant effects.
- 1.2.2 The REAC should be read alongside the Code of Construction Practice (CoCP) which forms Appendix A of the Construction Environmental Management Plan (CEMP) (**application document 7.5.1**). The CoCP contains the good practice measures, which generally comprise measures imposed through legislative requirements or represent standard sector good practices.
- 1.2.3 This REAC forms Appendix B of the CEMP and compliance with the REAC is secured through Requirement 4 of the draft Development Consent Order (DCO) (**application document 3.1**). As outlined in the CEMP, National Grid will put in place robust procedures to audit and inspect the project, including its supply chain of contractors, to make sure the control measures set out in the REAC are adopted when constructing the project. The REAC will apply to all areas of the project delivered pursuant to the DCO, during construction and the contractor(s) will be expected to demonstrate compliance with these measures.
- 1.2.4 This appendix is structured with the embedded measures presented in Chapter 2 and the additional mitigation measures identified as part of the EIA presented in Chapter 3.

## 2. Embedded Measures

- 2.1.1 The embedded measures in Table 2.1 includes those that are intrinsic to and built into the design of the project, some of which are inherent to the draft DCO (**application document 3.1**) and / or shown on the Works Plans (**application document 2.5**). It also includes measures that have been identified through the environmental assessment as part of the iterative design and have been committed to as part of the application of the mitigation hierarchy, to avoid or reduce likely significant environmental effects to support a proportionate assessment. These have been given an ‘EM’ prefix and reference number to make it easy to cross reference them. The location specific embedded measures are shown on Figure 4.1: The Project (**application document 6.4**).
- 2.1.2 Some of the measures presented in Table 2.1 were initially presented within the Scoping Report (**application document 6.5.1**) submitted to the Planning Inspectorate in May 2021. These were updated for the Statutory Consultation to reflect both updates to the design and feedback from engagement with consultees.

Table 2.1 – Embedded Measures

Ref	Embedded Measure	Status Within the DCO
<b>Project Wide Measures</b>		
EM-P01	The project has committed to deliver net gain by at least 10% or greater in environmental value (including biodiversity) on this project.	Included as Requirement 13 in the draft DCO ( <b>application document 3.1</b> ).
EM-P02	Approximately 25km of the existing 132kV overhead line will be removed between Burstall Bridge and Twinstead Tee.	Inherent to the design shown on the Works Plans ( <b>application document 2.5</b> ).
EM-P03	The project will include triple Araucaria conductors or alternative technology that performs to the same or better standard in relation to noise on standard lattice pylons.	Embedded measure assumed as part of the EIA. Secured through the CEMP ( <b>application document 7.5</b> ).
EM-P04	The project will be designed in accordance with National Grid design standards and will be compliant with the guidelines and policies relating to electric and magnetic fields stated in National Policy Statement EN-5 (Department of Energy and Climate Change, 2011b), including the International Commission on Non-Ionizing Radiation Protection guidelines (1998).	Inherent to National Grid policy.

Ref	Embedded Measure	Status Within the DCO
EM-P05	The project will be designed to comply with design safety standards including National Electricity Transmission System Security and Quality of Supply Standards and the suite of National Grid policies and processes which contains details on design standards required to be met when designing, constructing and operating its project.	Inherent to National Grid policy.
EM-P06	Full line tension gantries are proposed at all four of the proposed cable sealing end (CSE) compounds.	Inherent to the Table of Parameters provided as part of the Works Plans ( <b>application document 2.5</b> ).
EM-P07	The grid supply point (GSP) substation and the CSE compounds including their Limits of Deviation have been located outside of areas at medium and high risk of river flooding (Flood Zones 2 and 3).	Inherent to the design shown on the Works Plans ( <b>application document 2.5</b> ).
EM-P08	A pre-construction survey will be completed on the owl boxes at the following locations in Section AB (606008, 242971) and (605795, 242182), Section D (601723, 240239) and Section G (587727, 236150) and (587107, 236009). If occupied and nesting, no trenchless crossing launching or piling works are to be undertaken within 40m of the owl box, until the nest box is unoccupied, which will be confirmed on-site by the Environmental Clerk of Works. The 40m buffer will be marked / fenced off if deemed necessary by an ecologist.	Embedded measure assumed as part of the EIA. Secured through the Landscape and Ecological Management Plan (LEMP) ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-P09	<p>The following measures will be undertaken at these Habitats of Principal Importance:</p> <ul style="list-style-type: none"> <li>Section AB: W1d – Wet woodland (Polygon ID H_A_882) from approximate X,Y 609117, 242911 to 609069, 242902 will be protected and retained;</li> <li>Section D: G1a6 - Other lowland dry acid grassland (polygon ID HL_26) from approximate X,Y 598853, 239095, 598807, 239079 will be protected and retained;</li> <li>Section D: W1f - Lowland mixed deciduous woodland (Polygon ID HL_255) from approximate X,Y 599972, 239524 to 599884, 239511 to the south of the 132kV overhead line to be removed will be protected and retained;</li> <li>Section E: W1f - Lowland mixed deciduous woodland (Polygon ID HL_43a) from approximate X,Y 598887, 239111 to 598856, 239069 will be maintained;</li> </ul>	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).

Ref	Embedded Measure	Status Within the DCO
	<ul style="list-style-type: none"> <li>Section F: U1a - Open Mosaic Habitats on Previously Developed Land (HL_137) from approximate X,Y 593804, 237199 to 593679, 237184 will be protected and retained;</li> <li>Section F: W1f - Lowland mixed deciduous woodland (Polygon ID HL_295) from approximate X,Y 595782, 237791 to 595738, 237814 will be protected and retained (subject to required visibility splays at F-AP4);</li> <li>Section G: G1a - Lowland dry acid grassland (Polygon ID A_1265) from approximate X,Y 587366, 236661 to X,Y 587377, 236629 will be protected and retained; and</li> <li>Section H: W1d - Wet woodland (Polygon ID H_A_875) from approximate X,Y 5582150, 236926 to 582114, 236960 will be protected and retained (subject to maintaining operational safety clearance in relation to the existing overhead line).</li> </ul>	
<b>Section AB Bramford Substation/Hintlesham</b>		
EM-AB01	The Proposed Alignment to the north of Hintlesham Hall is based on the pylon locations from the optimised alignment discussed with English Heritage (now Historic England) in 2013. National Grid will continue to work with Historic England as the designs develop to identify the most suitable location for the pylons in relation to the setting of Hintlesham Hall, taking into account the limits of deviation and technical considerations such as distance between conductor spans. In utilising the LoD, National Grid will not position a pylon between the access track to Kennels Cottage (608112, 244204) and 100m to the south west of the track (608027, 244151) in order to avoid its visibility in key views from the Grade II* listed ancillary buildings located to the north of Hintlesham Hall, which comprise the converted service ranges, stables, coach house and brewhouse.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB02	The new 400kV overhead line will reuse the existing pylons (RB12 and RB13) at Hintlesham Woods Site of Special Scientific Interest (SSSI).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-AB03	No new pylon will be located within Valley Farm Meadows County Wildlife Site (CWS) (Babergh 61). Soil stripping within the CWS will be confined to the construction of the temporary access route. All vehicle access, including the temporary access route, through Valley Farm Meadows CWS will avoid the Priority Habitat w1d - Wet woodland (polygon ID H_A_944) and f2 - Fen marsh and swamp (Polygon ID H_A_809) located near the southern edge of the Order Limits.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB04	The proposed temporary access route to the south of Hintlesham Woods (AB-AP9) will not be used during dusk, dawn and night time hours during the months of May to August, to reduce the impacts to bat roosts, including a Barbastelle maternity roost and bat foraging corridor. Approximately from X, Y 606951, 242382 to 606750, 242945.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB05	The tree belt to the north of Hintlesham Woods (PoAWS5) will be retained other than at a 5m gap where the proposed temporary access route will cross the tree belt. Soil from the PoAWS5 will be stored separate to general soil storage so that it can be replaced at PoAWS5, where soil is suitable for reuse (for example, not contaminated).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB06	The works adjacent to Keebles Grove and Wolves Wood are for planting and the temporary access route. The work within these areas will be in accordance with the Vegetation Reinstatement Plan in Appendix B of the LEMP ( <b>application document 7.8.2</b> ).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
EM-AB07	Construction of the new 400kV overhead line (including pylon foundations) and any ground excavation work (excluding removal of the existing 132kV pylons) will lie a minimum of 15m away from the designated ancient woodland (Toms Wood) boundary.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB08	No root removal along the temporary access route will be undertaken through w1f - Lowland mixed deciduous woodland (Priority Habitat) (Polygon ID HL_262), located within Section AB: Bramford Substation/Hintlesham, from approximate X, Y 608910, 244710 to 608851, 244685.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).



Ref	Embedded Measure	Status Within the DCO
EM-AB09	<p>For the construction works in and around Hintlesham Woods (between pylons 4YL011 and 4YL017A) construction works will be undertaken outside of bird breeding season except for the following activities which need to take place within agreed outages:</p> <ul style="list-style-type: none"> <li>• Install conductors / transposition works;</li> <li>• Construction of pylon 4YL12A and removal of the existing 4YL12; and</li> <li>• Assembly and removal of temporary pylon RB12T.</li> </ul>	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB10	No intrusive construction activities will take place within 15m of the north and western edge of Hintlesham Woods SSSI (excluding planting proposals and works to the existing 400kV overhead line). This includes tracking of heavy vehicles or material storage and soil excavation. Demarcation fencing will be used to identify the exclusion zone.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB11	The temporary access routes used to move between pylons to the north and west of Hintlesham Woods SSSI will be located to the north and west of the proposed overhead line.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB12	Vegetation management for works to the existing overhead line within Hintlesham Woods SSSI will comprise coppicing to ground level for a width of up to 20m along the existing operational maintenance swathe. In addition, the trees will be managed at graduated heights for up to an additional 12.5m on either side of the 20m swathe for construction activities and to allow the conductors to be installed onto the arms of the existing pylons. Vegetation will be permanently managed to achieve operational safety clearances during operation as is currently undertaken with the existing overhead line. No heavy good vehicle access will be undertaken within the woods.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB13	The temporary access route through Hintlesham Woods SSSI will use protective matting (such as trackway) to facilitate works to the existing overhead line and will be micrositied using data gathered during the arboricultural and habitat surveys within the 20m coppiced area.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-AB14	Percussive piling will not be used to construct the foundations of temporary pylon RB12T (607067, 243469), to reduce the maximum (peak) noise levels associated with this construction method to avoid subsequent disturbance on sensitive species at Hintlesham Woods SSSI.	Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB15	No topsoil stripping is to be undertaken within 15m of the ancient woodland boundary at Hintlesham Little Wood and Hintlesham Great Wood. Temporary matting/trackway will be used where the temporary access route is located within 15m of PoAWS4, Hintlesham Great Wood and Hintlesham Little Wood to avoid compaction of the root protection area.	Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-AB16	The temporary access route adjacent to Keeble's Grove will not be topsoil stripped in order to avoid impacts to the root protection area of this woodland.	Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
<b>Section C Brett Valley</b>		
EM-C01	Scaffolding and netting will be used during construction of the overhead line (conducting installation works) over Hadleigh Railway Walk to maintain access during construction.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-C02	At Hadleigh Railway Walk, efforts will be made to reduce the impact on trees however, some vegetation may have to be cut in order to put netting over the scaffold crossing. No temporary access route will be located within the Railway Walk Local Nature Reserve, Hadleigh, located in Section C: Brett Valley (between approximate X, Y 604355, 241072 to 604145, 241135).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
<b>Section D Polstead</b>		
EM-D01	The design allows for an area of landscape planting around the CSE compound at Dedham Vale East. The embedded planting will be maintained for the life of the CSE compound.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-D02	Construction of the new 400kV underground cables and any ground excavation work (e.g. associated with the temporary access route or new service connection pursuant to the DCO) will lie a minimum of 15m away from the designated ancient woodland (Millfield Wood north) boundary.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-D03	The works adjacent to Millfield Wood South are for landscape planting only. The work within this area will be undertaken in accordance with the Vegetation Reinstatement Plan in Appendix B of the LEMP ( <b>application document 7.8.2</b> ).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
<b>Section E Dedham Vale Area of Outstanding Natural Beauty (AONB)</b>		
EM-E01	The project includes a section of underground cable through Section E: Dedham Vale AONB.	Inherent to the design shown on the Works Plans ( <b>application document 2.5</b> ).
EM-E02	The 132kV overhead line will be removed at The Dollops (Babergh 185). Construction activities will be confined to the existing operational maintenance swathe at this location. The conductors will be lowered down and pulled out. Light vehicles will use existing tracks within the woodland.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-E03	Suitable methods will be used to protect orchard trees when lowering and removing the 132kV overhead line.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-E04	The Order Limits have been narrowed to avoid removal of trees at Alder Carr. An arboriculturalist and ecologist will be consulted on the detailed design and construction methods to advise on sensitive working within the root protection area in accordance with British Standard 5837: 2012 Trees in Relation to Design, Demolition and Construction.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-E05	A trenchless crossing is proposed at the River Box. The drive pits will be located outside of Flood Zone 3 where practicable or will be managed in accordance with the flood risk action plan (W08 in the CoCP). On receipt of a severe flood warning, the Contractor would deploy suitable flood protection measures to safeguard work site personal and equipment.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-E06	Construction of the new 400kV underground cables and any ground excavation work (e.g. associated with the underground cable temporary access route) will lie a minimum of 15m away from the designated ancient woodland (Broom Hill) boundary. Construction access for the existing 132kV overhead line will use the existing track. Temporary matting/trackway will be used where the temporary access route is located within 15m of the ancient woodland unless advised otherwise by an arboriculturalist.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-E07	Works adjacent to Bushy Park Wood are for planting only. The work within this area will be undertaken by a landscape contractor and in accordance with the Vegetation Reinstatement Plan in Appendix B of the LEMP ( <b>application document 7.8.2</b> ).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
EM-E08	The proposed temporary access route between PCB54 and PCB55 in Section E: Dedham Vale AONB will avoid woodland and the pond.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
<b>Section F Leavenheath/Assington</b>		
EM-F01	The design allows for an area of landscape planting around the CSE compound at Dedham Vale West. The embedded planting will be maintained for the life of the CSE compound.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-F02	Site specific measures will be employed for the excavation of the trench for the service connection where they are delivered pursuant to the DCO to reduce the effects on the root protection area of the Leadenhall ancient woodland. A method statement will be prepared with input from an arboriculturalist. Measures may include but not be limited to hand digging and vacuum excavation under arboricultural supervision.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
<b>Section G Stour Valley</b>		
EM-G01	Approximately 2km of the existing 400kV overhead line will be removed to the south of Twinstead Tee.	Inherent to the design shown on the Works Plans ( <b>application document 2.5</b> ).
EM-G02	The project includes a section of underground cable through parts of the Section G: Stour Valley.	Inherent to the design shown on the Works Plans ( <b>application document 2.5</b> ).
EM-G03	The design allows for an area of landscape planting around the CSE compound at Stour Valley East. The embedded planting will be maintained for the life of the CSE compound.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
EM-G04	A trenchless crossing is proposed at the River Stour and beneath the Sudbury Branch Railway Line. The drive pits will be located outside of Flood Zone 3 where practicable or will be managed in accordance with the flood risk action plan (W08 in the CoCP). On receipt of a severe flood warning, the Contractor would deploy suitable flood protection measures to safeguard work site personal and equipment.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-G05	The Order Limits have been widened at the crossing of the River Stour to accommodate soil storage outside of Flood Zone 3 where practicable or to allow placement of soil leaving gaps to avoid blocking floodplain flow paths.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-G06	The design allows for an area of landscape planting around the CSE compound at Stour Valley West. The embedded planting will be maintained for the life of the CSE compound.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
EM-G07	The 400kV overhead line will be removed at Ansell's Grove/Ash Ground LWS (from approximate X,Y: 587022.00, 236075.00 and 587016.00, 236202.00) located in Section G: Stour Valley. At this location, construction activities will be confined to the existing operational maintenance swathe. The conductors will be lowered down and pulled out. Light vehicles will use existing tracks within the woodland.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-G08	A trenchless crossing is proposed to avoid habitats to the south of Ansell's Grove including Alphamstone Meadows LWS. Existing routes through the woods will be used where practicable by light good vehicles or tracked vehicles. Otherwise, pedestrian access will be maintained over the top of the trenchless crossing. There will be no temporary access route along the trenchless crossing.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-G09	Where installation of underground cabling is required across the lowland mixed deciduous woodland (Habitat ID H_A_1029) in Section G: Stour Valley, a reduced working width of 60m will be implemented.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-G10	Vegetation clearance will be limited to the existing access track and the base of the existing pylon within Twinstead Marsh Local Wildlife Site (Bra222) in Section G: Stour Valley from approximate X,Y: 586168, 237057 and only light good vehicles will be used during construction in this area.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-G11	The temporary construction works to remove the existing 400kV overhead line at Ansell's Grove (PoAWS10) will be limited to the existing operational maintained swathe within the woodland. There will be no temporary access route installed within the woodland. Light vehicles will use existing tracks within the woodland.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).

Ref	Embedded Measure	Status Within the DCO
EM-G12	Vegetation will be retained where practicable, (and in accordance with LEMP Appendix A: Vegetation Retention and Removal Plan) using gaps in existing hedgerows/trees, at w1d - wet woodland HL_108, located in Section G: Stour Valley from approximate 587186, 236634 and 586972, 236616).	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
<b>Section H GSP Substation</b>		
EM-H01	The GSP substation will include a noise enclosure around the transformers and this is built into the designs.	Embedded measure assumed as part of the EIA.
EM-H02	Landscape planting has been proposed to the east and west of the GSP substation. This will be maintained for the life of the GSP substation.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
EM-H03	The proposed GSP substation has been located away from the southern edge of Butler's Wood. Construction works will not encroach into or beyond the ditch that runs east west along the northern and southern edges of the GSP substation.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).
EM-H04	Low mounds are proposed to the west of the A131 and to the west of the proposed GSP substation. These will be planted to help filter views of the GSP substation from the A131 and from Wickham St Paul. The western mound would be approximately 2.5m high while the eastern mound would be approximately 1.5m high.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix B: Reinstatement Plan ( <b>application document 7.8.2</b> ).
EM-H05	Priority Habitat w1d - Wet woodland (Polygon ID H_A_875) located within Section H: GSP Substation, from approximate X,Y 582150, 236926 to 582114, 236960 will be retained and protected.	Embedded measure assumed as part of the EIA. Secured through the LEMP ( <b>application document 7.8</b> ) and as shown on LEMP Appendix A: Vegetation Retention and Removal Plan ( <b>application document 7.8.1</b> ).



### 3. Additional Mitigation Measures

3.1.1 Table 3.1 presents the additional mitigation that has been identified during the EIA process as being necessary to avoid or reduce significant impacts on the environment. These measures are secured through one of the management plans outlined in Requirement 4 of the draft DCO (**application document 3.1**). These have been given an 'EIA' prefix and reference number to make it easy to cross reference them in the ES Chapters.

Table 3.1 – Additional Mitigation Measures

Ref	Chapter /Topic	Description of Mitigation Measure	Securing Mechanism
EIA_LV01	ES Chapter 6: Landscape and Visual ( <b>application document 6.2.6</b> )	Proposed woodland and scrub planting at Bramford Substation (MM01) will benefit properties on Church Lane by filtering views of the substation.	Secured through the LEMP ( <b>application document 7.8</b> ) and LEMP Appendix B: Vegetation Reinstatement Plan ( <b>application document 7.8.2</b> ).
EIA_LV02	ES Chapter 6: Landscape and Visual ( <b>application document 6.2.6</b> )	Proposed hedgerow planting (MM06) will benefit properties along the A1071 by filtering views of the new 400kV overhead line.	Secured through the LEMP ( <b>application document 7.8</b> ) and LEMP Appendix B: Vegetation Reinstatement Plan ( <b>application document 7.8.2</b> ).
EIA_B01	ES Chapter 7: Biodiversity ( <b>application document 6.2.7</b> )	Mitigation woodland creation (natural regeneration and planting), proposed at two locations connected to Hintlesham Woods: MM09 and MM10.	Secured through the LEMP ( <b>application document 7.8</b> ) and LEMP Appendix B: Vegetation Reinstatement Plan ( <b>application document 7.8.2</b> ).
EIA_H01	ES Chapter 8: Historic Environment ( <b>application document 6.2.8</b> )	Archaeological recording (preservation by record) as per the Archaeological Framework Strategy ( <b>application document 7.9</b> ) and Outline Written Scheme of Investigation ( <b>application document 7.10</b> ).	Secured through the Archaeological Framework Strategy ( <b>application document 7.9</b> ) and Outline Written Scheme of Investigation ( <b>application document 7.10</b> ).



Ref	Chapter /Topic	Description of Mitigation Measure	Securing Mechanism
EIA_TT01	ES Chapter 12: Traffic and Transport ( <b>application document 6.2.12</b> )	Install warning signage prior to construction at Church Road, Twinstead to inform users of the road that construction traffic will be using it.	Secured through the Construction Traffic Management Plan ( <b>application document 7.6</b> ).
EIA_NV01	ES Chapter 14: Noise and Vibration ( <b>application document 6.2.14</b> )	<p>Additional temporary noise mitigation measures (site-specific best practicable means) will be put in place to reduce noise levels from construction plant and machinery at the following locations, unless a detailed assessment is undertaken which demonstrates that no significant noise impacts would occur:</p> <ul style="list-style-type: none"> <li>• Underground cables approximately 160m to the south of Dews Hall Education Centre, Henny Road, Lamarsh, CO8 5EX (588737, 236699);</li> <li>• Pylon 4Y004A (Realignment/construction) (609163, 245621);</li> <li>• Pylon RB44 (Construction) (292553, 237006);</li> <li>• Pylon RB7 (Construction) (608185, 244251);</li> <li>• Pylon RB33 (Construction) (600664, 239851);</li> <li>• Pylon RB25 (Construction) (603394, 240956);</li> <li>• Pylon 4YLA002 (Removal) (587008, 236421);</li> <li>• Trenchless crossing of the River Stour (night-time works) (589271, 236627 and 589846, 236774);</li> <li>• Trenchless crossing of the Sudbury Branch Railway Line (night-time works) (588758, 236508 and 589213, 236612); and</li> <li>• Trenchless crossing to the south of Ansell's Grove (night-time works) (587186, 235954 and 587832, 236098).</li> </ul>	Secured through the CEMP ( <b>application document 7.5</b> ).
EIA_NV02	ES Chapter 14: Noise and Vibration ( <b>application document 6.2.14</b> )	Additional temporary measures will be put in place to reduce vibration levels from construction plant and machinery at pylon 4Y004A, to the east of Hill House Farm, Burstall Hill (609110, 245633), unless a detailed assessment is undertaken which demonstrates that no significant vibration impacts would occur.	Secured through the CEMP ( <b>application document 7.5</b> ).

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