East Anglia
Offshore Wind

VATTENFALL

SCOTTISHPOWER RENEWABLES

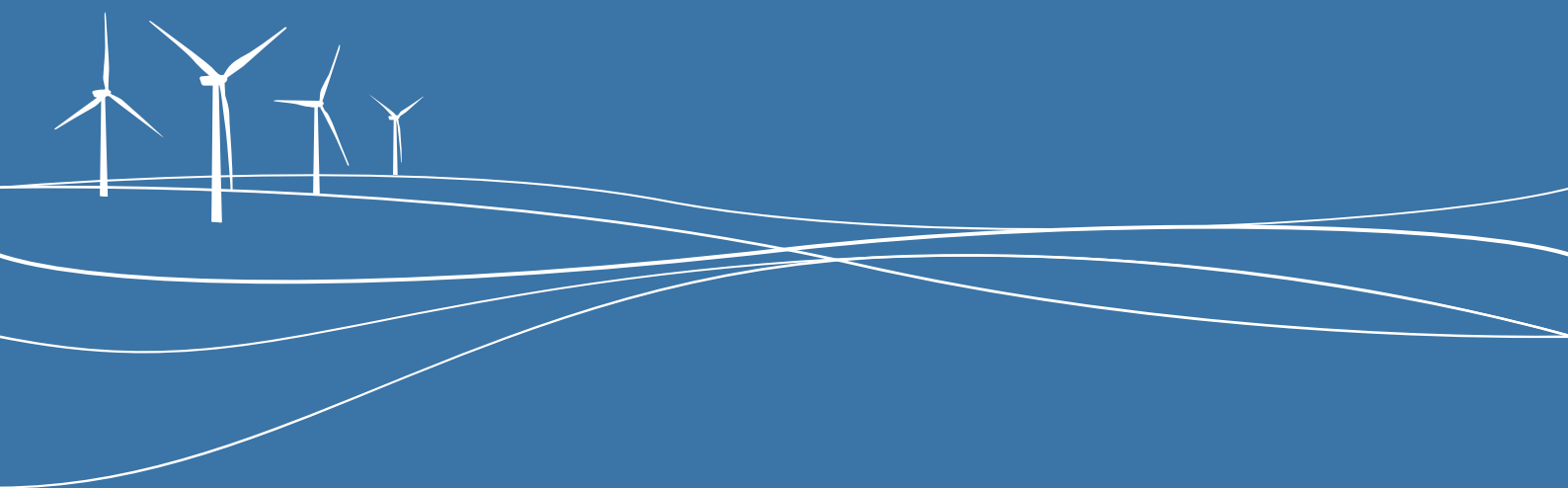
East Anglia THREE

Appendix 23.3

East Anglia ONE onshore ecology consultation, East Anglia THREE Method Statement Evidence Plan, Statement of Common Ground (SoCG) and Evidence Plan Agreement Log

Environmental Statement
Volume 3
Document Reference – 6.3.23 (3)

Author – Royal HaskoningDHV
East Anglia THREE Limited
Date – November 2015
Revision History – Revision A



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23.3 A East Anglia ONE Onshore Ecology Consultation

Table 1: East Anglia ONE onshore ecology consultation (taken verbatim from consultation documents)

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
East Anglia ONE			
Suffolk Preservation Society (29 March 2012)	Phase 2 Consultation Comments	Seek assurance that where sensitive habitats will be adversely affected e.g. salt marshes, flood plain meadows, calciferous grassland, hedgerows and semi natural woodlands (UK BAP and LBAP priority habitats), appropriate mitigation will be undertaken in proximity. Seek assurance that the final choice of route within the corridor will avoid such areas of importance.	Where possible, sensitive areas have been avoided. The site selection exercise is described within Volume 1, Chapter 3: Site Selection. Figure 24.1 shows the Onshore cable route in relation to sensitive ecological features. Where avoidance cannot be achieved, mitigation measures are proposed to minimise the impacts, and are detailed in Section 24.7 of Chapter 24 of the East Anglia ONE ES.
Suffolk County Council (2 August 2012)	June 2012 / Phase 2 Consultation Comments	A draft ecological management plan and draft code of construction practice should be agreed by the time of DCO submission.	An outline Code of Construction Practice and Ecological Management Plan are submitted alongside the application for the Development Consent Order. The final versions of these documents would be agreed with the relevant Local Planning Authorities prior to construction.
Suffolk County Council (2 August 2012)	June 2012 / Phase 2 Consultation Comments	Environmental issues raised regarding the primary consolidation area (Site E). The site and its vicinity should be checked for badger interest. The eastern portion of the site, including the pine belt, presents significant environmental constraints.	Areas associated with the onshore electrical transmission works, including the area for Construction Consolidation Site E have been subject to detailed ecological surveys. The results of the badger survey are provided in the confidential Volume 5, Appendix 24.13. The impacts of the onshore electrical transmission works are discussed within Chapter 24

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
			of the East Anglia ONE ES at Section 24.6.
Suffolk County Council (2 August 2012)	June 2012 / Phase 2 Consultation Comments	Seek commitment to retain all trees that are proved to be used as bat roosts.	No tree roosts were identified during the detailed tree surveys for bats. The report of the bat surveys is available within Volume 5, Appendix 24.4.
Suffolk County Council (2 August 2012)	June 2012 / Phase 2 Consultation Comments	Request written commitment to undertaking hedgerow restoration and enhancement beyond the immediate width requiring removal within the cable corridor. Opportunities to strengthen and reinforce affected hedgerows should form part of the strategy to mitigate landscape (and ecological) impacts.	Hedgerow restoration is discussed within Volume 4, Chapter 29 Seascape, Landscape and Visual Amenity and within an outline Landscape Strategy within Volume 5, Appendix 29.5.
Suffolk County Council (2 August 2012)	June 2012 / Phase 2 Consultation Comments	Assessments of all the consolidation and temporary works areas required.	Impacts associated with construction of the onshore electrical transmission works are discussed within Chapter 24 of the East Anglia ONE ES at Section 24.6.
Suffolk Wildlife Trust (03 August 2012)	June 2012 / Phase 2 Consultation Comments	Recognise consideration has been given to cable routing to limit impacts upon biodiversity, including re-routing to avoid Seckford Hall Camp Site County Wildlife Site (CWS); however several locations still cross both statutory and non-statutory designated sites including: Suffolk Shingle Beaches CWS; River Deben Estuary Special Protection Area (SPA), Ramsar site and Site of Special Scientific Interest (SSSI); The Mill River CWS; River Gipping CWS; and Miller's Wood CWS. Recommended that suitable methods, such as non open-cut techniques are	Sites have been avoided where possible and where crossing is required, mitigation measures are proposed in Chapter 24 of the East Anglia ONE ES in Section 24.7.

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		employed to ensure no adverse impact on these sites. Noted that a temporary access road is proposed through Miller's Wood CWS - an ancient woodland site; recommend only existing tracks are used for access.	
Babergh District Council (20 July 2012)	June 2012 / Phase 2 Consultation Comments	Greater clarity required in relation to the impact upon designated and non designated heritage assets, woodlands, trees and hedgerows and biodiversity interests.	The impacts on ecology and ornithology at designated and non desginated sites is discussed within Chapter 24 of the East Anglia ONE ES at Section 24.6.
Butterfly Conservation	June 2012 / Phase 2 Consultation Comments	If the landfall is closer to the coastal strip at Bawdsey then it is likely to have a significant impact on wall brown butterfly. Two possible solutions need investigation: 1) identify an alternative landfall site; or 2) give due consideration to the butterfly in the planning, execution and restoration of the landfall arrangements e.g. creation of suitable butterfly habitat to re-colonise as potential mitigation.	Invertebrate surveys included an assessment of the coastal cliffs. This is provided in Volume 5, Appendix 24.9. The selection of the Landfall Location is a result of a careful site selection exercise which aimed to minimise impacts on a wide range of receptors. This exercise is described in Volume 1, Chapter 3: Site Selection Details of impacts and mitigation regarding the wall brown butterfly is provided in section 24.6 and 24.7. The method of construction (HDD) minimises any potential impact.
Natural England (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Potential for disturbance at Martlesham Creek; the ES (and HRA if necessary) should detail how disturbance effects will be avoided or mitigated in a similar way to Ramsholt Marshes.	Mitigation measures for designated sites are discussed in Chapter 24 of the East Anglia ONE ES in Section 24.7.
Natural England (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Potential for pollution/contamination of the SSSI/SPA from compound operations, and potential for contaminant leakage and	Potential impacts and mitigation measures on wintering birds are considered in Chapter 24 of the East Anglia ONE ES at

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		management of drilling fluid should be considered.	Section 24.6 and 24.7. Mitigation measures include the commitment to agree with the relevant Local Planning Authorities an Ecological Management Plan and Code of Construction Practice.
Natural England (02 August 2012)	June 2012 / Phase 2 Consultation Comments	The ES and HRA should describe the likely effects on known populations and detail mitigation measures. Possibilities to reduce disturbance impacts by carrying out handling operations from the folding, rather than on top of the sea wall or on the estuary side, to avoid 'sky-lining'.	Potential impacts and mitigation measures on wintering birds are considered in Chapter 24 of the East Anglia ONE ES at Section 24.6 and 24.7.
Natural England (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Consider disturbance to wintering and nesting birds during construction, compound operation, servicing and decommissioning. WeBS data indicates the lower reaches of the Deben represent the main Avocet roost area on the Estuary. Surrounding fields may be used by significant numbers of SPA population Brent Geese. Possible sources of disturbance include barge traffic, handling operations on the pontoon, noise/light disturbance from compound operations on Ramsholt marshes, people movements etc.	EAOW no longer proposes the use of the River Deben for the transport of construction materials. Potential impacts from construction works on breeding and wintering birds are considered in Chapter 24 of the East Anglia ONE ES in Section 24.6.
Natural England (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Concerning river based access and the compound on Ramsholt Marshes, the EIA and HRA should consider direct disturbance/damage to SPA/SSSI saltmarsh and	EAOW no longer proposes the use of the River Deben for the transport of construction materials. Potential impacts on coastal habitats (including the SPA/SSSI saltmarsh and

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		mudflat habitat (including mudflat compaction) as a result of construction/mooring/use of structures and possible mitigated. Should also include the post construction and servicing stages.	mudflat habitat) are considered in Chapter 24 of the East Anglia ONE ES in Section 24.6.
Natural England (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Focused attention on direct drilling under the Deben and use of the river to transport materials (cable etc) to a compound on the Ramsholt Marshes. Noted this would possibly be in place for up to a year. Have no objection to this idea in principle, but advise that the EIA and Habitats Regulation Assessment (HRA) examine disturbance to birds, damage to habitats, and pollution effects. Unlikely timing restrictions would be placed on the cable route works; however this would be dependent on the EIA / HRA outcomes and suitable mitigation where needed.	The impact assessment of the onshore electrical transmission works on ecology and ornithology around the Deben Estuary is detailed within Chapter 24 of the East Anglia ONE ES. A separate report to inform the Habitats Regulations Assessment has been undertaken and is submitted alongside the application for the Development Consent Order. EAOW no longer proposes the use of the River Deben for the transport of construction materials.
Deben Estuary Partnership (1st August 2012)	June 2012 / Phase 2 Consultation Comments	The intertidal area and land adjacent to the Deben and Martlesham crossings have significant environmental importance. Construction impacts should be minimised with temporary working areas set back from river walls and work phased to lessen impacts on breeding and overwintering birds. Expect impact assessment of the creation of riverside construction sites, haul roads, and handling of drilling slurry. Queried whether (decontaminated) clay slurry / sediment spoil from	There will be no direct impacts to the water courses at the River Deben and Martlesham Creek crossings due to the use of HDD methods. The locations of the HDD compounds associated with these compounds are outlined within Volume 1, Chapter 4 and shown on Volume 6, Figure 4-10. Impacts of construction of the Onshore cable route on ornithology are discussed in Section 24.6. Detailed method statements for HDD operations would be finalised

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		drilling could be directed to appropriate saltmarsh regeneration projects.	prior to construction. These and the Code of Construction Practice would consider disposal of arisings. For the purposes of the ES, as a worst case, it has been assumed that arisings from HDD operations would be disposed of at a licenced landfill.
Marine Management Organisation (08 August 2012)	June 2012 / Phase 2 Consultation Comments	If open cut trenching methods are to be used for landfall construction, potential impacts on Bawdsey Cliffs SSSI and possible mitigation must be provided in order for scientists at Cefas to provide a full and informed response.	EAOW do not propose to use open cut trenching methods at the landfall, but HDD techniques instead.
Martlesham Parish Council (02 August 2012)	June 2012 / Phase 2 Consultation Comments	The veteran oak at 625300/248100 should be avoided. Queried whether tunneling can be done for several veteran trees south of Martlesham Creek. A further veteran oak identified at 626400/246800; south of this track is a wildflower meadow which the proposed route runs through.	As detailed in the Mitigation section of Chapter 24 of the East Anglia ONE ES at Section 24.7, a detailed arboricultural survey would be undertaken prior to construction in order to identify high value trees and inform the micro-routeing options.
Martlesham Parish Council (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Queried why the cable cannot be tunnelled underground for hedges in the same manner for roads and rivers.	The design of the onshore electrical transmission works to be undergrounded, plus a careful route selection exercise has identified an Onshore cable route that minimises impacts on trees and hedgerows. HDD techniques are proposed in a number of locations, as shown on Volume 6, Figure 4-10. Outwith these locations, the open cut crossing of hedgerows is required for construction and access along the running track. The impact

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
			assessment and mitigation measures for hedgerows is provided in Chapter 24 of the East Anglia ONE ES in Sections 24.6 and 24.7 respectively.
Martlesham Parish Council (02 August 2012)	June 2012 / Phase 2 Consultation Comments	Concerned the planting of trees on the corridor route post cable installation is not permitted; this seems restrictive especially as most tree roots have less than 1m depth. Provided records of some 100 veteran trees in Martlesham which it is hoped will be avoided.	Restrictions on planting of trees over the cables within the Onshore cable route are required in order to prevent drying out of the soil and overheating of cables. The impact assessment and mitigation measures for trees and hedgerows are provided within Chapter 24 of the East Anglia ONE ES in Sections 24.6 and 24.7 respectively.
RSPB	February 2012 / Preliminary Environmental Information Report	Pleased to see commitment that hedgerows, ditches and other features providing biodiversity benefits will be replaced following cable laying. Features to reinstate should include field margins (important habitat for wildlife within the farmed environment). Where it is proposed to reinstate hedgerow and trees, these should be in a greater proportion than the length of hedgerow or tree numbers removed.	Mitigation and reinstatement measures are discussed within Chapter 24 of the East Anglia ONE ES at Section Reinstatement measures for hedgerows are also discussed within Volume 4, Chapter 29 Seascape, Landscape and Visual, and within an outline Landscape Strategy provided within Volume 5, Appendix 29.5. Mitigation measures for hedgerows and biodiversity features would be detailed within a detailed Ecological Management Plan (EMP), to be agreed with the relevant Local Planning Authorities prior to construction.
RSPB	February 2012 / Preliminary Environmental Information Report	RSPB recommends that additional consultation on breeding bird locations be carried out asap given surveys should start in April. Happy to provide advice on potential survey locations.	Locations of survey areas were submitted to Suffolk County Council, Mid Suffolk Council, Natural England, and Suffolk Wildlife Trust for comment.

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
RSPB	February 2012 / Preliminary Environmental Information Report	Undertaking one year's winter bird survey should be dependent upon: the information collected; additional information available on bird usage of the application site; and if sufficient to draw robust conclusions about the likely impacts. Recommend this must be reviewed.	The winter bird survey was supplemented by BTO WeBS data, and gives a robust assessment. The results of the winter bird survey are detailed in Volume 5, Appendix 24.11.
RSPB	February 2012 / Preliminary Environmental Information Report	No further justification has been given for HDD to lay cables at the Deben and Martlesham Creek crossing points. Recommends further information be provided to support this and enable consultees to fully evaluate.	All early stage engineering advice supports the feasibility of HDD techniques for the crossing of the River Deben and Martlesham Creek by the Onshore cable route. The application for a Development Consent Order does not seek permission for open cut methods of crossing these watercourses.
RSPB	February 2012 / Preliminary Environmental Information Report	Maintenance works around the Deben crossing points - consider the nature of works and measures to minimise impacts including timing of works outside the bird breeding season and avoiding high tides.	An assessment of impacts on breeding and wintering birds together with mitigation is provided in Chapter 24 of the East Anglia ONE ES in Section 24.6 and 24.7 respectively.
Natural England	February 2012 / Preliminary Environmental Information Report	Welcome acknowledgment that saltmarsh and mudflats have national and local importance, and will require surveys to assess value.	The Phase 1 Habitat Survey and Phase 2 botanical surveys reports (available in Volume 5, Appendices 24.2 and 24.3) fully assess the saltmarsh vegetation value.
Natural England	February 2012 / Preliminary Environmental Information Report	Welcomes the need for further grassland surveys, should these remain within the cable corridor.	All species-rich grasslands identified on the route were subject to detailed botanical surveys. Reports of these surveys are provided in Volume 5, Appendix 24.3.
Natural	February 2012 /	Request that HDD is considered	As a special engineering

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
England	Preliminary Environmental Information Report	for sites identified as supporting habitats.	measure, HDD techniques have been proposed at designated sites and other sensitive locations where possible. The locations of proposed HDD sites are shown on Volume 6, Figure 4.10.
Natural England	February 2012 / Preliminary Environmental Information Report	Welcome the approach to cover areas outside of the designated sites; many act as supporting habitat for bird features and it is important to understand any impacts. Particularly the case around the proposed River Deben crossing - the freshwater grazing marsh behind the river is important for several species.	The detailed breeding bird survey report is provided in Volume 5, Appendix 24.12. This highlights the areas covered by the survey.
Natural England	February 2012 / Preliminary Environmental Information Report	Expecting early consultation to agree breeding bird survey location and methodology.	Locations of survey areas were submitted to Suffolk County Council, Mid Suffolk Council, Natural England and Suffolk Wildlife Trust for comment.
Butterfly Conservation	February 2012 / Preliminary Environmental Information Report	Silver-studded Blue butterfly, *Plebejus argus*, is a priority species in the UK BAP. The proposed cable route passes close to one of its fragile colonies on the Site of Special Scientific Interest at Martlesham Heath. Damage can be avoided here by judicious routing.	The site selection exercise ensured that the Onshore cable route avoids Martlesham Heath, and therefore avoids potential impacts in the Silver-studded Blue Butterfly.
Butterfly Conservation	February 2012 / Preliminary Environmental Information Report	The Wall Brown, *Lasiommata megera* is a butterfly listed within the UK BAP as a study species. The coastal strip at Bawdsey is one of our best colonies; construction of the landfall site with onshore transition pits would have a	Invertebrate surveys included an assessment of the coastal cliffs. This is provided in Volume 5, Appendix 24.9. The selection of the landfall location is a result of a careful site selection exercise which aimed to minimise impacts on

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		significant impact on this species. Requested consideration be given to: Identify an alternative location for the landfall site; and to the presence of the butterfly in the planning, execution and restoration of the landfall arrangements. The creation of suitable butterfly habitat to re-colonise will form important mitigation, notwithstanding the risk of the Bawdsey colony being permanently extinguished by the works.	a wide range of receptors. This exercise is described in Volume 1, Chapter 3: Site Selection.
Mid Suffolk District Council	February 2012 / Preliminary Environmental Information Report	No reference to impacts on badgers; Bramford area has a high badger population and setts.	A detailed badger survey has been undertaken and is contained within confidential Volume 5, Appendix 24.13. Impacts to badgers are assessed within Chapter 24 of the East Anglia ONE ES in Section 24.6.
Bawdsey Parish Council	February 2012 / Preliminary Environmental Information Report	Queried: plans to avoid disturbance to Harriers, other raptors and feeding birds along the Deben and surrounding area(s); which hedgerows and trees would be removed and replaced; and what future site inspection access will be required.	Mitigation measures for avoidance of disturbance to breeding and wintering birds are detailed in Chapter 24 of the East Anglia ONE ES in Section 24.7. The impact assessment and mitigation measures for trees and hedgerows is provided in Sections 24.6 and 24.7 respectively.
Suffolk Preservation Society	February 2012 / Preliminary Environmental Information Report	Seeks assurance where sensitive habitats will be adversely affected, appropriate mitigation will be undertaken in proximity. Also seeking assurance that the final choice of route will avoid such areas of importance.	Where impacts are identified these are addressed in full in Section 24.6 together with mitigation in Section 24.7. During the routeing process, sensitive areas have been avoided (e.g. Seckford Hall CWS) or embedded mitigation (e.g. HDD crossing of Millers Wood CWS) avoids impacts.

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
Suffolk Wildlife Trust	February 2012 / Preliminary Environmental Information Report	Regarding dormouse nest tube surveys, these should conform to the level of effort and duration described in the Dormouse Conservation Handbook (English Nature, 2006). Experience indicates it is necessary to extend surveys beyond September into late autumn to provide robust results.	The survey locations for Dormouse were submitted to Suffolk County Council, Mid Suffolk Council, Natural England and Suffolk Wildlife Trust. The surveys conform to the level of effort detailed under Natural England guidance. Volume 5, Appendix 24.5 gives full survey details. No responses were received.
Suffolk Wildlife Trust	February 2012 / Preliminary Environmental Information Report	Seckford Hall Camp Site CWS supports nationally rare lichen heath; would object to any activity detrimental to the CWS and therefore consider the ES must assess potential impacts on this site and identify mitigation.	The Onshore cable route was modified in order to avoid Seckford Hall Camp Site CWS.
Suffolk Wildlife Trust	February 2012 / Preliminary Environmental Information Report	ES should assess likely impacts on Biodiversity Action Plan (BAP) habitats, including damage and destruction during construction and operation. Impacts should be suitably mitigated or compensated for. Loss of BAP habitat, including cumulative impact, on protected and/or BAP species should also be assessed.	The impacts on Biodiversity Action Plan species and habitats are detailed in Chapter 24 of the East Anglia ONE ES in Section 24.6. This includes potential impacts on bats and Great Crested Newts. Mitigation measures are discussed within Chapter 24 of the East Anglia ONE ES in Section 24.7.
Suffolk Wildlife Trust	February 2012 / Preliminary Environmental Information Report	Support reference to including stag beetle mitigation.	Stag beetles are not considered to be significantly impacted. Impacts are discussed within Chapter 24 of the East Anglia ONE ES in Section 24.6.2.8.7. A report of terrestrial invertebrate surveys is given in Volume 5, Appendix 24.9.
Suffolk Wildlife Trust	February 2012 / Preliminary Environmental Information Report	Habitats Regulations Assessment; both offshore and onshore elements have potential for significant	The impacts of the onshore electrical transmission works on designated sites are assessed in Chapter 24 of the

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		adverse impacts on sites of European nature conservation importance.	East Anglia ONE ES in Section 24.6. Impacts of the East Anglia ONE Wind Farm and offshore export cable are assessed within this ES in Volume 2.
Suffolk County Council	February 2012 / Preliminary Environmental Information Report	Dormice surveys must include linking hedgerows within the cable route.	All survey locations were provided to Suffolk County Council for comment prior to surveys being undertaken, and included connecting hedgerow habitat.
Suffolk County Council	February 2012 / Preliminary Environmental Information Report	Lack of badger evidence, especially in the Bramford area, is unexpected. The proposed methodology for systematic searching for setts is acceptable.	The initial assessment did not include a detailed survey for Badgers, however a detailed Badger survey has subsequently identified Badgers along the Onshore cable route. A report of this Badger survey is contained in confidential Volume 5, Appendix 24.13.
Suffolk County Council	February 2012 / Preliminary Environmental Information Report	Noted further consultation will take place regarding construction and mitigation techniques in relation to Stag Beetles.	The assessment follows the IEEM guidelines. It is possible that different consultancies may interpret the guidelines in slightly different ways.
Suffolk County Council	February 2012 / Preliminary Environmental Information Report	Noted that monitoring is not emphasised; essential to ensure mitigation measures are effective and the risk of harm to wildlife is minimised.	Post construction monitoring is proposed within Chapter 24 of the East Anglia ONE ES and is discussed in Section xx.
Norfolk County Council	June 2011 / Scoping	ES will need to consider impacts on ecology including cumulative impacts.	Impacts on ecology are discussed in Chapter 24 of the East Anglia ONE ES in Section 24.6, including discussion on cumulative impacts.
Ipswich Borough Council	June 2011 / Scoping	Request that land based and watercourse ecology are considered.	Impacts on both are discussed in Chapter 24 of the East Anglia ONE ES in Section 24.6.
Suffolk County Council	June 2011 / Scoping	Need to consider cumulative impacts of the whole East	Chapter 24 of the East Anglia ONE ES assesses the effects

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		Anglian Array development. Scoping should include a full cumulative assessment taking into account the consequences of overhead transmission line proposals between Bramford and Twinstead.	on ecology and ornithology of the installation of cables for East Anglia ONE and ducting for future projects in the East Anglia Zone connecting into Bramford i.e. East Anglia FOUR. The cumulative impacts associated with the onshore electrical transmission works are detailed in Section 24.6.5.
Joint Nature Conservation Committee (JNCC)	June 2011 / Scoping	Provided a response with specific guidance on the scope of the assessment, requesting: the boundaries between categories of sensitivity and different magnitudes of effect are clearly defined; and cumulative and in-combination effects be considered. Impacts should include a full assessment of possible disturbance, change or removal of intertidal and terrestrial habitats along the cable route.	The details of assessing the impacts follows guidance by by the institute for Ecology and Environmental Management (IEEM) and is defined in Chapter 24 of the East Anglia ONE ES in Section 24.4. Where impacts are identified these are addressed in full in Section 24.6.
Joint Nature Conservation Committee (JNCC)	June 2011 / Scoping	EIA in relation to the Onshore cable route will be based on one wintering season (2011/12). This does not align with standard practice of collecting 2 years of survey data in the context of the offshore EIA. WeBS counts for the survey area may provide sufficient justification in this instance. Welcome the plan to conduct one core (high water) count and one low tide count per sector per month; however the survey period should extend to cover September and October 2011 and March 2012 to align with WeBS core counts. Impacts should include	The assessment has been based on one season's survey for the Onshore cable route due to the temporary nature of the construction works. This has been supplemented with WeBs data from the British Trust for Ornithology (BTO). The surveys were undertaken from September 2011 to March 2012 for high tide counts and October 2011 to February 2012 for low tide counts. These timings are in line with the BTO WeBs count methods. Where impacts are identified these are addressed in full in the Chapter in

Consultee	Date /Document	Comment	Response / where addressed in the East Anglia ONE Environmental Statement (ES)
		a full assessment of the possible disturbance, change or removal of intertidal and terrestrial habitats along the cable route. Noise disturbance should include noise and visual disturbance to birds, assessed during all phases except operation. Impacts on intertidal habitats, benthic communities and terrestrial habitats along the cable route should be included and fully assessed for all project stages.	Section 24.6
Planning Inspectorate	June 2011 / Scoping	ES must include an assessment of all protected sites which may be affected by the proposed development, not only within the Area of Search. Study area may need to go wider than the cable corridor and buffer area. Requests the study area has a min. 30m buffer around the perimeter, the extent of which should be agreed with relevant bodies. Requests the impacts of any ongoing maintenance are considered.	Where impacts are identified these are addressed in full in Chapter 24 of the East Anglia ONE ES in Section 24.6. For the purposes of surveys a survey corridor of 160m was used and all survey locations were provided to consultees. Impacts during the operational lifetime of the Onshore cable route are detailed in Section 24.6.

23.3 B East Anglia THREE Method Statement

East Anglia
Offshore Wind

VATTENFALL

SCOTTISHPOWER RENEWABLES

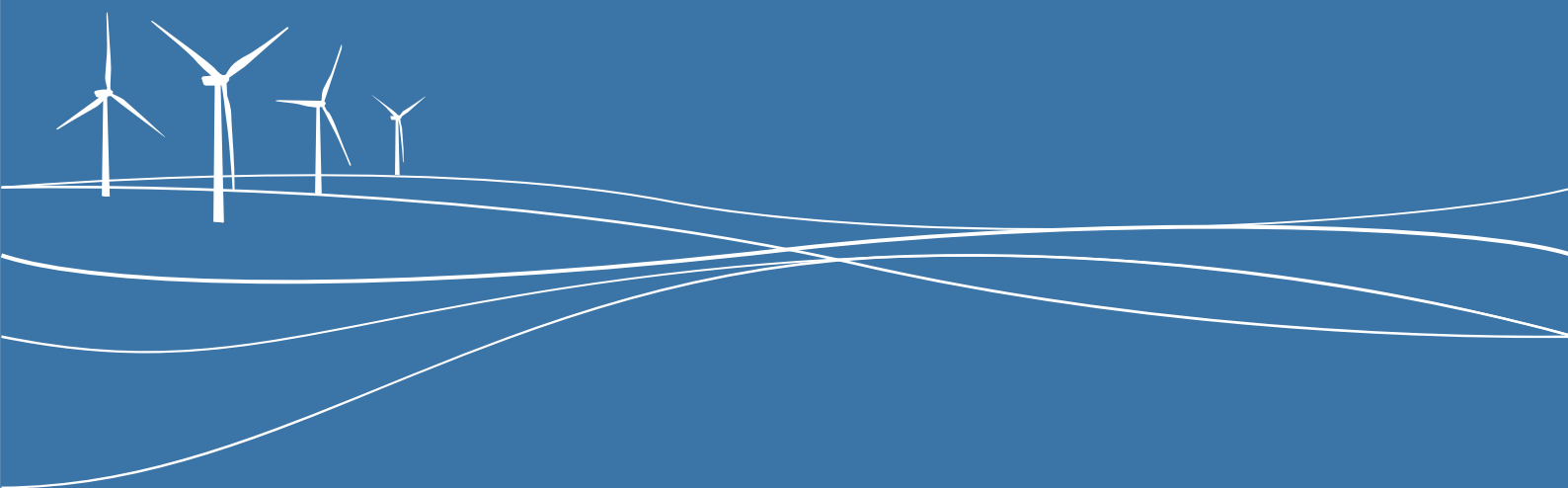
East Anglia THREE and East Anglia FOUR

Evidence Plan

Onshore Ecology Method statement

Onshore Ecology Expert Topic Group
Preliminary meeting: November 2013

Author – Royal HaskoningDHV
East Anglia Offshore Wind Limited
Date – October 2014
Revision History – Revision B



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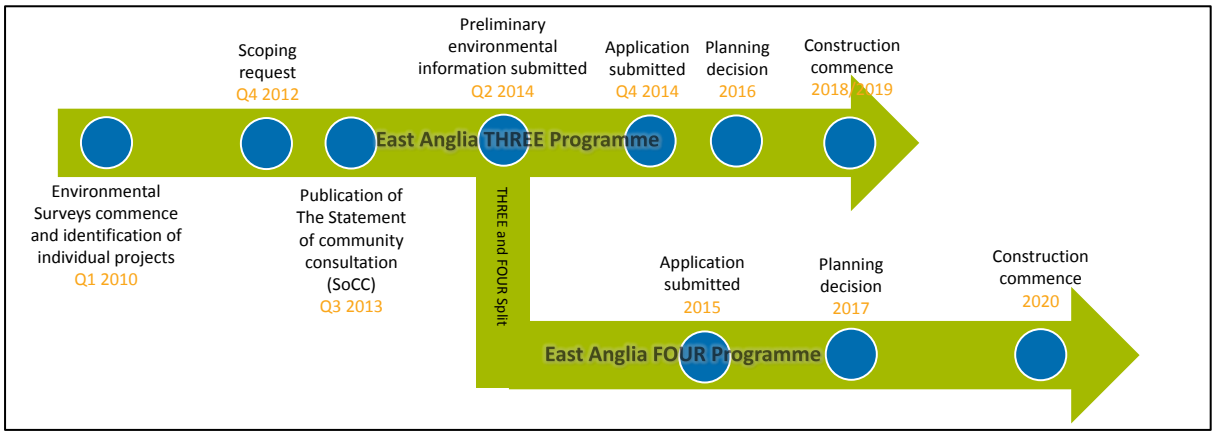
1 INTRODUCTION

1. This note is designed to provide the reader with a background to the status of the onshore ecology Environmental Impact Assessment (EIA) for East Anglia THREE and FOUR offshore windfarms. Note that all onshore ornithology matters are covered by the Ornithology Expert Topic Group.

1.1 Background

2. A time line leading up to DCO submission for both East Anglia THREE and East Anglia FOUR is displayed below. It is the intention that the Preliminary Environmental Information (PEI) (which will be a draft Environmental Statement (ES)) for both projects will submitted in May 2014 after which point effort will be focused on completing the final East Anglia THREE ES for submission in November 2014. The Final submission date for East Anglia FOUR is likely to be in Q2 of 2015. The Habitats Regulations Assessment (HRA) work will be progressed in parallel, it is expected that onshore ecology considerations will be screened out of further assessment in the initial stages of the HRA process (see section 4.5).

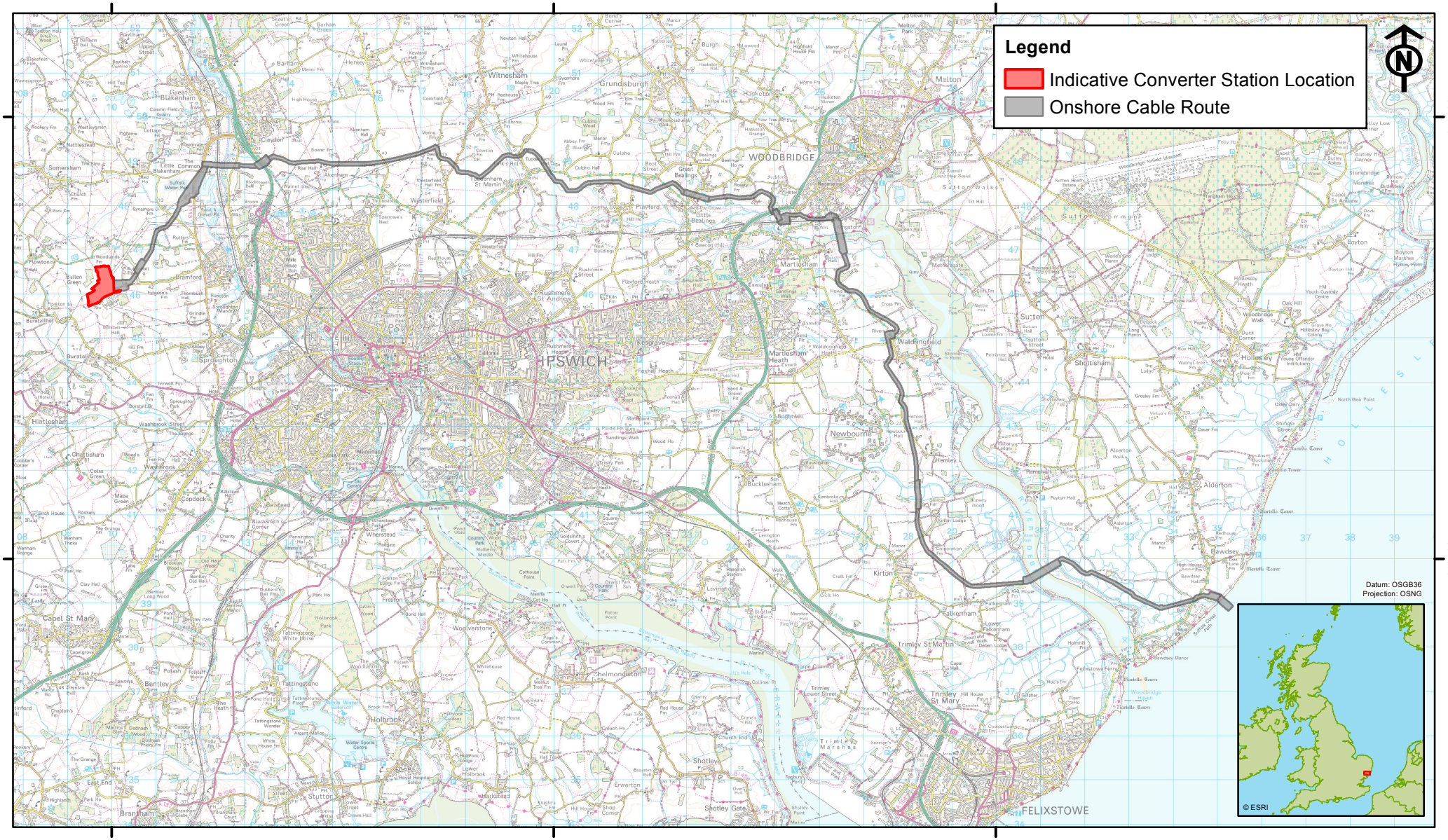


1.2 Project Description

3. The location of East Anglia THREE and East Anglia FOUR windfarms are presented Figure 1 and 2 below and various parameters for each windfarm are provided in Table 1 below.

Table 1. Indicative project characteristics

Parameter	East Anglia THREE	East Anglia FOUR
Capacity	1,200MW	1,200MW
Number of turbines	120-240 units	120-240 units
Windfarm area (offshore)	370km^2	359km^2
Distance from windfarm to shore (midpoint of site to port at Lowestoft)	79km	91km
Maximum offshore cable corridor length	140km	160km
Maximum offshore cable corridor area	550km^2	550km^2
Number of export cables (HVDC)	Up to 4	Up to 4
Grid connection location	Bramford substation	Bramford substation
Onshore cable route length	37km	37km
Onshore cable route maximum working width	75m	75m
Number of export cables	Up to 4	Up to 4
Converter station compound area	Up to 2.85ha	Up to 2.85ha
Converter station buildings height	Up to 25m	Up to 25m



SCOTTISHPOWER RENEWABLES VATTENFALL

Rev	Date	By	Comment
A	24/10/13	LW	First Issue

Original A4 Plot Scale 1:120,000

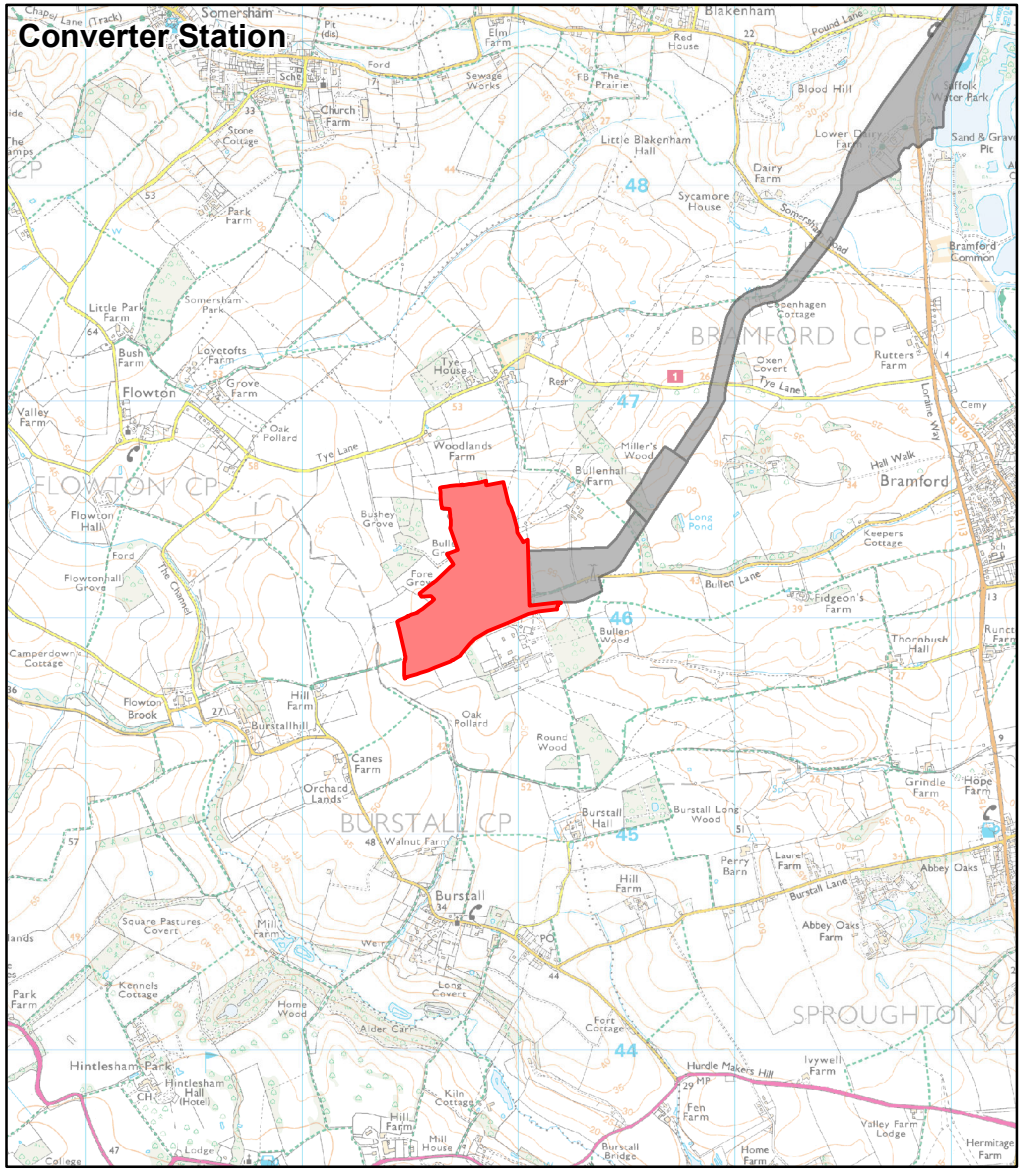
0 1 2 3 km

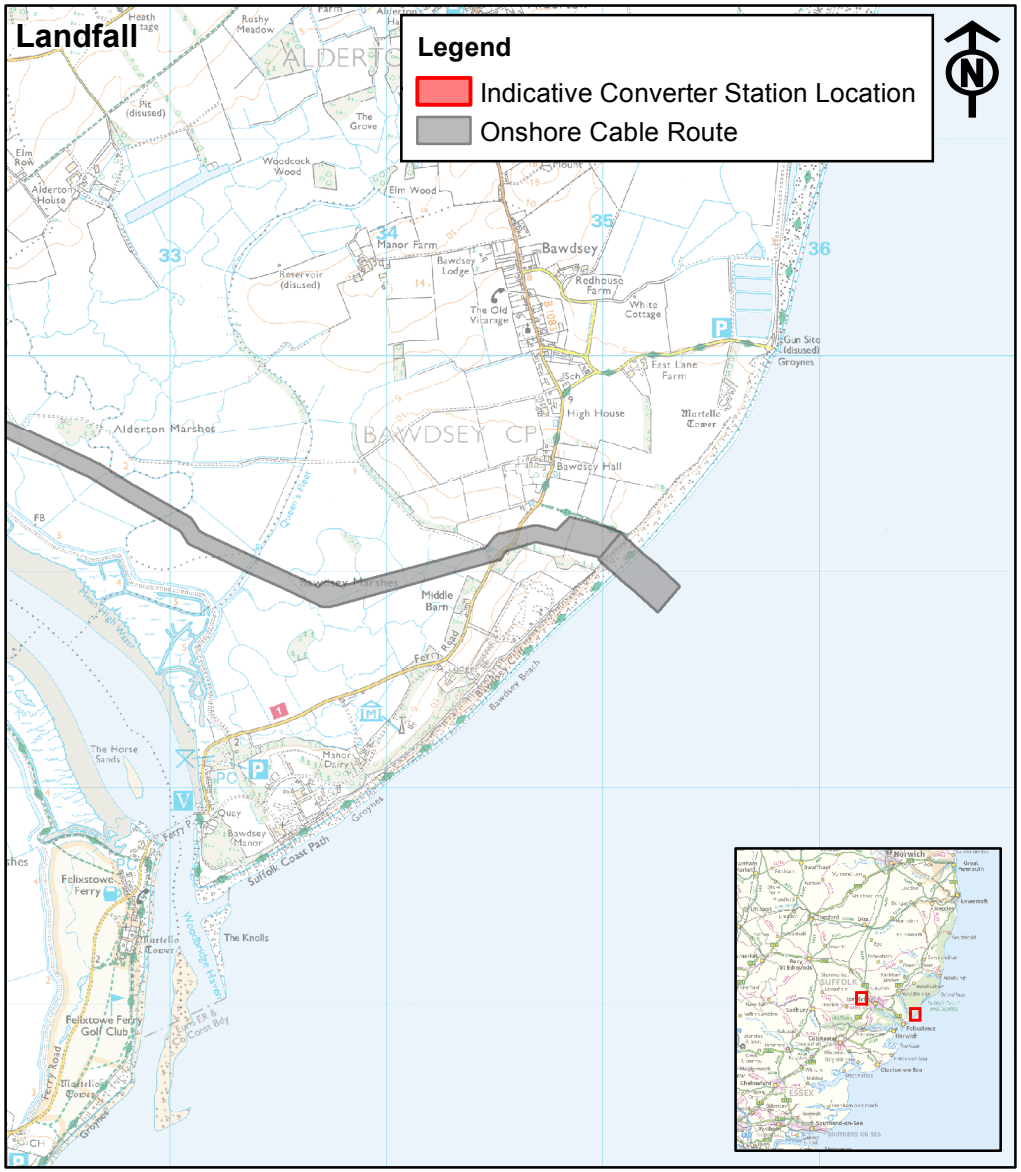
East Anglia Offshore Wind

East Anglia THREE and East Anglia FOUR
Onshore Cable Route

Drg No	
Rev	A
Date	24/10/13
Layout	N/A

Figure 1





Rev	Date	By	Comment
A	24/10/13	LW	First Issue

Original A4 Plot Scale 1:35,000

0 1 km

East Anglia Offshore Wind

East Anglia THREE and East Anglia FOUR
Onshore Cable Route

Drg No	
Rev	A
Date	24/10/13
Layout	N/A

Figure 2

Ref: Z5_Zone_v03_100914rs, Z5_Project_v10_100914rs, EAOW1_CabCoAoI_v06_110811lm_UTM31N, EAOW1_CabCo_v06_110626rs_UTM31N, EAOW_OnCabCo_v05_110628rs_OSNG

2 SITE SELECTION

2.1 Onshore cable route

4. The onshore cable route was selected as part of the development works for East Anglia ONE. Further detailed information on the onshore cable route selection process can be found in the East Anglia ONE Preliminary Environmental Information (EAOW, 2012a). Whilst this route was primarily identified for the East Anglia ONE project, the intention throughout the process was to identify a route which could accommodate the requirements of two further projects (up to 3.6 GW of connection in total).

5. The onshore cable route was selected following an iterative process and in consultation with local authorities, local communities and relevant statutory consultees. An initial boundary was refined in a number of stages through the analysis of environmental and technical (engineering) constraints and consultation. This exercise was supported further by site walkovers at specific locations by environmental and technical specialists.

6. The key drivers for selecting the preferred onshore cable route were:

- Local authorities and conservation bodies consulted provided a strong indication that routeing north of Ipswich would be preferable in order to minimise the requirement for major estuary crossings;
- Assuming a landfall at Bawdsey, the environmental preference was to cross the Deben as quickly as possible to route away from the AONB and avoid marshland and bird overwintering areas - it was also preferable to route west of the Deben to Woodbridge given the archaeological importance of the area to the east (close to Sutton Hoo);
- Assuming a route north of Ipswich, a route east of Newbourne was seen as preferable as this was more direct, thereby reducing disruption, and avoiding a SSSI;
- A route immediately to the south of Woodbridge was the preferred route as this avoided any areas of woodland and County Wildlife Sites (CWS); and
- A route west of Suffolk Water Park was considered preferable to the route east as it avoided a potentially contaminated land site (a former fertiliser factory) and a landfill.

7. The principles for site selection were agreed as being appropriate by Natural England in the Statement of Common Ground agreed for East Anglia ONE in July 2013.

8. The onshore cable route is shown in Figure 2.

2.2 Indicative Converter Station location

9. The Indicative Converter Station location for East Anglia THREE and East Anglia FOUR is influenced by the need to connect the converter stations to the National Grid substation at Bramford. The site boundary (as shown in Figure 2) has been selected such that it would be able to accommodate up to three converter station compounds, which could be used to connect up to 3.6GW of export capacity to the National Grid.

10. The Indicative Converter Station was selected via an iterative process. Initially EAOW sought to identify a suitable brownfield site on the basis that it may have offered reduced environmental impact. However, it was concluded that there were no suitable brownfield sites which could accommodate the three converter station compounds.

11. As a result the area of search was refined to cover land in close proximity to the existing national grid substation at Bramford. Site options were sought that would have the minimum environmental impact and that would be feasible in terms of engineering requirements.

12. More detail on this process can be found in the East Anglia ONE PEI (EAOW, 2012a). The principles for site selection were agreed as being appropriate by Natural England in the Statement of Common Ground agreed for East Anglia ONE in July 2013.

13. The converter station site boundary can be seen in Figure 2.

3 BASELINE ENVIRONMENT

14. This section covers the onshore biological environment within and surrounding the proposed East Anglia THREE and East Anglia FOUR onshore cable route and Indicative Converter Station location. The eastern boundary is determined by the Mean Low Water Springs (MLWS) mark within the export cable landfall and also includes the rivers at the point which cables or infrastructure cross them regardless of whether the river is tidal at that point.

3.1 Designated sites

3.1.1 Statutory Designated Sites

15. The cable route for East Anglia THREE and East Anglia FOUR falls within the 75m wide, 37km long cable route identified during the development of East Anglia ONE. Table 2 presents the 14 statutory designated sites that are within 2km of the cable route and Indicative Converter Station location (EAOW, 2012a). Descriptions of the sites are taken directly from their citations or from the Natural England website (as listed below Table 2)). Distance and direction are measured from the nearest point of the designation to the nearest point of the onshore cable route or Indicative Converter Station location, whichever element of onshore electrical transmission works is closer. The distances are rounded to the nearest 0.1km.

Table 2 Statutory Designated Sites of Relevance to the East Anglia THREE and East Anglia FOUR onshore works

Name	Grid reference	Area / ha	Distance and direction from study areas (km)	Notified features
The Deben Estuary SPA, Ramsar, SSSI	TM 295504 - 330378	979 (SPA/Ramsar) 976 (SSSI)	Within the cable route	SPA/Ramsar (relevant sub-features) Intertidal mudflat communities – the site is relatively sheltered and narrow, particularly at the mouth which is protected by shifting sand and gravel banks. Much of the intertidal area is mudflats with more sandy deposits occurring where exposed red crag erodes from cliffs. The mudflats support populations of invertebrate species such as *Hydrobia* and *Corophium* Saltmarsh communities – the site supports a complex mosaic of saltmarsh communities which form an important habitat for roosting avocets. They vary in species composition depending on substrate type, frequency of tidal inundation, exposure, position within the estuary and past management practices. SSSI The Deben Estuary supports approximately 40% of Suffolk's area of saltmarsh which also displays the most complete range of the vegetation's community types in the county. The Estuary supports three nationally scarce plant species, namely marsh mallow *Althaea officinalis*, shrubby seablite *Suaeda fruticosa* and small cord-grass *Spartina maritima*. The nationally rare mollusc *Vertigo augustior* and nationally scarce *V.pusilla* have also been recorded.
Suffolk Coast and Heaths AONB	n/a	403	Within the cable route	This is one of the most important wildlife areas in Britain including three NNRs, many SSSIs and the RSPB's Minsmere Reserve. The mud-flats and creeks of the AONB's salt-marsh-fringed estuaries contain wildlife wetland sites of national and international importance.[1]

[1] Natural England, AONB website. Suffolk Coast and Heaths. Available at http://www.naturalengland.org.uk/ourwork/conservation/designations/aonb/suffolk.aspx

Name	Grid reference	Area / ha	Distance and direction from study areas (km)	Notified features
Bawdsey Cliff SSSI	TM 338380 to TM 352393	23.3	Within the cable route	Bawdsey Cliffs are designated primarily for their geological interest and for their value for studying non-glacial Pleistocene environments. Of biological interest is a wealth of marine molluscs, present on the exposed Red Crag[2].
Orfordness Shinglestreet SAC	TM 440486	901.19	<0.5 north	Coastal lagoons are a priority feature of this site but habitats of annual vegetation of drift lines and perennial vegetation of stony banks are also primary reasons for selection of the site. The nationally rare starlet sea anemone *Nematostella vectensis* has been recorded here.
Alde –Ore SPA, Ramsar, SSSI	TM 394757 to TM 358402	2,416.8 (SPA) 2,547 (Ramsar) 2,554.3 (SSSI)	<0.5 north	SPA/Ramsar (relevant sub-features) Shallow coastal water - The shallow waters of the Suffolk coast provide a feeding area for lesser black-backed gulls. For this reason, shallow coastal waters have been identified as a sub-feature. Intertidal mudflat - There are extensive areas of intertidal mudflats exposed in the estuary at low tide. The mudflats provide an important feeding and roosting area for redshank and lesser black-backed gulls. The redshank feed in the estuary and in Stony Ditch. They feed predominantly on ragworm and lugworm, largely on the tideline, following the tide in and out. The lesser black-backed gulls feed throughout the estuary on various prey items. Saltmarsh communities - Narrow fringes of saltmarsh occur along the length of the estuary with wider expanses at Shingle Street, Havergate Island, Stony Ditch, the upper reaches of the Butley river and in places by the Alde river SSSI This site stretches along the coast from Bawdsey to Aldeburgh and inland to Snape. It includes Orfordness, Shingle Street, Havergate Island, and the Butley, Ore and Alde Rivers. The scientific interests of the site are outstanding and diverse. The shingle structures of Orfordness and Shingle Street are of great physiographic importance whilst the cliff at Gedgrave is of geological interest. The site also contains a number of coastal formations

[2] Bawdsey Cliffs SSSI. Available at:http://www.sssi.naturalengland.org.uk/citation/citation_photo/1002355.pdf

Name	Grid reference	Area / ha	Distance and direction from study areas (km)	Notified features
				and estuarine features including mud-flats, saltmarsh, vegetated shingle and coastal lagoons which are of special botanical and ornithological value. [3]
Newbourn Springs SSSI	TM 272434	13.0	<0.5 west	Newbourn Springs is a relatively small site which contains a variety of habitats in close juxtaposition. The major part of the site comprises a narrow spring-flush valley occupied by a fast flowing stream with alder carr and small areas of fen on peat overlying London clay. Drier more acidic soils further west and above the stream valley support broad-leaved woodland, scrub, grassland communities and bracken dominated heath. Active management has led to the maintenance of a rich and varied flora and the subsequent diversity of habitats attracts good populations of breeding and migratory birds.[4]
Little Blakenham Pit SSSI	TM 109491 TM 112485	4.3	<1 north-west	This site consists of former chalk workings which support one of the few examples of chalk grassland flora in East Suffolk. Amongst the more unusual plants present is the locally rare greater broomrape *Orobanche rapum-ganistae*. A tunnel, totalling about 127m in length, radiates outwards from one pit which also contains two disused limekilns. This tunnel is extremely important, as it contains one of the largest underground roosts for hibernating bats known in Great Britain. Three species of bat regularly use the tunnel between September and April, principally Daubenton's bat *Myotis daubentoni*, Natterer's bat *Myotis nattereri* and Brown Long-eared bat *Plecotus auritus*, but occasional visitors are Whiskered bat *Myotis mystacinus* and Brandt's bat *Myotis brandti*. A badger sett has also been recorded here[5].
Ramsholt Cliff SSSI	TM 298428	2.1	<2 west	This SSSI is notified for its geological and paleontological interest as whole as its biological interest. The fauna is rich and well preserved and contains a number of uncommon species. Amongst these the most notable are the large barnacle *Balanus concavus*, the coral *Cryptangia woodii* and large colonies of the bryozoan *Turbicellepora* which forms

[3] Alde-Ore Estuary SSSI Citation (as notified in 1954). Available at: http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003208.pdf
[4] Newbourn Springs SSSI Citation (as notified in 1954). Available at: http://www.sssi.naturalengland.org.uk/citation/citation_photo/1000791.pdf
[5] Little Blakenham Pit SSSI Citation (as notified in 1966). http://www.sssi.naturalengland.org.uk/citation/citation_photo/1004523.pdf

Name	Grid reference	Area / ha	Distance and direction from study areas (km)	Notified features
				the substrate for *C. woodii* Many species of aragonitic mollusc are also found[6].
Riverside House Meadow, Hasketon SSSI	TM 245503	1.5	<2 north	Riverside House Meadow is a floristically rich unimproved meadow. The number of such traditionally managed herb-rich meadows has been greatly reduced in recent decades and they remain under threat from changes in agricultural practice. The site supports a typically high number of grasses and herbs[7].
Bramford Meadows CWS and LNR	TM 128465	8.98	<2 south	Low lying river grassland and scrub in a linear strip along the River Gipping. The meadows are crossed by wet ditches and the old course of the river. Species found include slender ground hopper, great green bush cricket, brown argus, reed and sedge warblers and flowering rush. The site is designated as a County Wildlife Site for ditch vegetation including water forget me not, marsh woundwort, water mint, brooklime and water figwort[8]
Mill Stream LNR	TM 210443	4.66	<2 south	Habitats include wet carr woodland, ponds and wood/scrub. Water voles are present.[9]
Rede Wood CWS and LNR	TM 153506	7.59	<2 north	Habitats include oak pollard woodland with field maple, aspen, hawthorn and birds nest orchid (rare). Forty nine species of fungi have been recorded on site.[10]
Sinks Valley, Kesgrave SSSI	TM224461	23	<2 south	This site contains a range of habitats from open water, fringing swamp, spring-fed fen, wet grassland and wet *Alnus glutinosa* (Alder) woodland, to dry acid grassland, heathland and *Quercus* sp. (Oak) woodland rising up the valley sides.

[6] Ramsholt Cliff Citation (as notified in 1987). http://www.sssi.naturalengland.org.uk/citation/citation_photo/1001596.pdf
[7] River House Meadow, Hasketon SSSI (as notified in 1993).
Available at: http://www.sssi.naturalengland.org.uk/Special/sssi/sitedocuments.cfm?type=citation&sssi_id=1006842
[8] Natural England Local Nature Reserves website. Bramford LNR. Available at: http://www.lnr.naturalengland.org.uk/
[9] Natural England Local Nature Reserves website. Mill Stream. Available at: http://www.lnr.naturalengland.org.uk/Special/lnr/lnr_details.asp?C=0&N=mill stream&ID=1538
[10] Natural England Local Nature Reserves website. Mill Stream. Available at: http://www.lnr.naturalengland.org.uk/Special/lnr/lnr_details.asp?C=0&N=rede&ID=932

3.1.2 Non-statutory designated sites

16. 77 non-statutory designated sites have been identified within 2km of the onshore cable route (EAOW 2012b). However, due to the careful selection of the onshore cable route, the majority of non-statutory sites are avoided. Therefore of the sites located within 100m of the onshore cable route, only 4 are crossed. Non-statutory sites within 100m of the onshore cable route are listed below:

- Suffolk Shingle Beaches CWS;
- Millers Wood ASNW & CWS;
- Seckford Hall Campsite CWS;
- River Gipping (Sections) CWS;
- The Mill River CWS;
- Fore and Bushey Groves CWS;
- Lumber Wood ASNW & CWS;
- Welham's Meadow CWS;
- Bullen Wood ASNW & CWS;
- Round Wood and Elms Grove ASNW & CWS;
- Meadow Cottage Wood CWS;
- Playford Reservoir CWS;
- Newbourne Springs Meadows CWS;
- Suffolk Water Park CWS; and
- Newbourne Springs SWT.

17. Non statutory sites crossed by the onshore cable route:

- Millers Wood ASNW & CWS;
- River Gipping (Sections) CWS;
- The Mill River CWS; and
- Suffolk Shingle Beaches CWS.

18. Millers Wood ASNW & CWS, River Gipping (Sections) CWS and The Mill River CWS will be crossed using trenchless methods such as horizontal directional drilling (HDD), thus avoiding direct impacts. Suffolk Shingle Beaches CWS will be crossed using other techniques.

19. Two non-statutory designated sites were located within 2km of the Indicative Converter Station location; Fore and Busy Groves CWS and Bullen Wood ASNW and CWS.

3.2 Habitats and species

20. Full details of surveys to date along the cable route are listed in Appendix 1. These include surveys of the intertidal habitat, terrestrial habitat and protected species.

21. The intertidal benthic surveys were undertaken from the winter of 2011/2012 at Bawdsey landfall, Deben Estuary and Martlesham Creek (which will be crossed by the cable route). The terrestrial surveys included an Extended Phase 1 Habitat Survey using standard JNCC methodology (JNCC 2010), Hedgerow Survey, River Corridor Survey, NVC survey and invasive non-native plant survey all undertaken in 2011 and 2012.

22. Protected species surveys undertaken included dormouse, badger, great-crested newt, bat, otter and water vole, reptile surveys, and terrestrial and aquatic invertebrate surveys. The surveys were undertaken from spring to early autumn 2012.

3.2.1 Terrestrial habitats

23. Habitats recorded in the Extended Phase 1 Habitat Survey included woodland, hedgerow, calcifugous grassland, ponds and swamps and watercourses (EAOW, 2012b). These habitats are UKBAP priority and LBAP priority habitats. Scrub and ruderal vegetation habitats, agricultural, unimproved and semi improved grasslands, marshy grassland were also recorded.

24. At the indicative converter station location the habitats are predominantly arable land and hedgerow. These habitats are common and widespread, and considered to be no more than of local importance (EAOW, 2012b).

3.2.2 Coastal habitats

25. Coastal habitats recorded in the Extended Phase 1 Habitat Survey include shingle, maritime cliff and slope, saltmarsh. These habitats are UKBAP priority and LBAP priority habitats.

3.2.3 Species

26. The following notable plant species were recorded along the onshore cable route (EAOW, 2012b):

- Nationally scarce;
  - Mossy stonecrop *Crassula tillaea*;
  - Perennial glasswort *Sarcocornia perennis* ; and
  - Suffocated clover *Trifolium suffocatum*.
- Red List species (Near threatened);

  - Common cudweed *Filago vulgaris*; and
  - Hoary cinquefoil *Potentilla argentea*.
- Invasive species
  - Hottentot-fig *Carpobrotus edulis*;
  - Canadian waterweed *Elodea canadensis*;
  - Indian balsam *Impatiens glandulifera*; and
  - Japanese rose *Rosa rugosa*.

27. A desk-top review of biological data records and the results of the ecological surveys undertaken for the cable route (EAOW, 2012b) indicates that there are suitable habitats within the onshore cable route area for:

- Water vole (with five key areas for water voles identified during water vole surveys);
- Reptiles (with grass snake *Natrix natrix*, slow-worm *Anguis fragilis* and common lizard *Lacerta vivapara* recorded in presence/absence surveys and potential for adder *Vipera berus*);
- Bats (commuting and foraging activity recorded during surveys, but no roosts recorded);
- Badger (including 34 separate badger setts of varying status);
- Great crested newts (with six water bodies with confirmed presence in the great crested newt survey);
- Invertebrates, in particular, the saltmarsh adjacent to the Deben was identified as being of particular importance; and
- Otters: records for otter were found within 2km of the cable route (EAOW, 2012a) and several spraints recorded during otter surveys. No holts or couches were identified, but otters are highly mobile and potentially will commute and forage through the majority of the features surveyed).

28. Records reviewed also indicated the presence of dormouse and some suitable habitat for dormouse. However, hedgerow and woodland identified along the cable route was generally considered to be of poor quality and no evidence of dormouse was recorded during targeted surveys (EAOW, 2012b).

4 APPROACH TO ASSESSMENT

4.1 Available data

29. Available site specific data sets for the onshore biological environment are listed in Table 3. These datasets come from work undertaken to date on the onshore cable route which form the basis of the EIA undertaken for East Anglia ONE, and will be used to inform the EIA for East Anglia THREE and East Anglia FOUR. The full list of surveys undertaken is given in Appendix 1 and includes terrestrial and intertidal habitats surveys and protected species surveys.

Table 3. Available site specific onshore biological environment datasets

Data	Coverage	Date
Extended Phase 1 Survey 2012 report (EAOW)	Within East Anglia ONE proposed onshore cable corridor and converter station refined area of search	Sept and Oct 2011, Feb – Apr 2012
Protected species surveys reports (East Anglia ONE EIA)	Within the varying distances (see Appendix 2) of the East Anglia proposed cable corridor and within suitable habitat.	Jan – Aug 2012

30. EAOW believe that the data collected to date covering terrestrial ecology are sufficient for the purposes of EIA for East Anglia THREE and East Anglia FOUR in that they sufficiently characterise the receiving environment. The onshore cable route is identical to East Anglia ONE and works will be within the corridor identified as sufficient for three sets of cables, it is therefore not anticipated that any works would fall outside of the existing study area. This position was discussed and agreed in principle with Natural England in March 2013 (see Appendix 2).

31. Whether the East Anglia THREE and East Anglia FOUR cables are installed in pre-installed ducts or open- trenched, the data characterising the onshore cable route will need to be the same for either option - there will still be a requirement for large plant, temporary roads etc. In many cases the impacts are likely to be similar but with lower magnitudes for cable-pulling (see Appendix 3: Extract from Position Statement on 2013 Associated Development Guidance – Onshore Cable Ducts July 2013 (EAOW, 2013)).

32. It is intended that as part of the works undertaken for the assessments of East Anglia THREE and East Anglia FOUR the following will be undertaken:

- Walk-over of the onshore cable route (full or partial dependent upon access);

- Re-survey of badger setts; and
- Review and update (where required) of existing data sets used for the assessment of East Anglia ONE (with for example any updated Biological Records information).

33. These works are intended to ground truth the findings of the East Anglia ONE assessment, to update information where possible and ensure that the assessment is robust and specific to East Anglia THREE and East Anglia FOUR with regard to any changes since the East Anglia ONE assessment.

34. It is intended that further detailed work will be undertaken at the appropriate time (i.e. during the pre-construction phase) for the purposes of generating baselines for monitoring or mitigation requirements under the consent, with methodologies agreed at that time.

35. In addition, as a starting point the mitigation already agreed for East Anglia ONE will be adhered to for East Anglia THREE and East Anglia FOUR and included in the EIA (see Table 4 for relevant ecological mitigations, Appendix 4 is the full Appendix 2I: Mitigation Measures Committed to in the East Anglia ONE Environmental Statement

36. **It is expected that the suitability of the data collected by EAOW for characterisation of the onshore Ecology in the EIA will be agreed in ETG meeting 1.**

Table 4 Extract from Mitigation Measures Committed to in the Environmental Statement

Phase	Description of Impact	Mitigation Measures	Control
Construction	Potential to reduce the available foraging and roosting habitat for bats.	No 24hr lighting unless HDD, or CCS (or road crossing occurring overnight)	Schedule A, Part 3, Requirement 28 (External lighting and control of artificial light emissions) Requirement 26 Ecological Management Plan
Construction	Impact on habitat	Reduced working width to 35m is proposed at all hedgerows and watercourse crossings where possible	Schedule A, Part 3, Requirement 27 Code of Construction Practice Schedule A, Part 3, Requirement 26 Ecological Management Plan
Pre-Construction	Impact on protected species	Undertake pre-construction surveys in relation to protected species, Annex 1 and Schedule 1 birds to ensure mitigation is based on up-to-date survey data.	Schedule A, Part 3, Requirement 33, European Protected Species
Construction	Impact on protected species	Mitigation for protected species (great crested newt, reptiles and water vole – undertaken in accordance with license conditions). For example: -Bat boxes will be provided where trees which have features suitable for roosting bats are lost. -Great Crested Newt mitigation will be carried out under licence from Natural England. -Reptile mitigation in the form of translocation and/or hand searches would be implemented during vegetation clearance. -Water Vole mitigation would involve dissuasion and/or translocation. -Night time working would be limited near watercourses to minimise impacts on Otters	Schedule A, Part 3, Requirement 33, European Protected Species and Schedule A, Part 3, Requirement 26, Ecological Management Plan
Construction	Construction Effect on foraging and commuting of bats	Appropriate reinstatement of hedgerows	Schedule A, Part 3, Requirement 26, Ecological Management Plan
Construction	Impact on sensitive ecology	Generally a large number of commitments are made around ecology and working practices which are to be translated into the Ecological Mitigation Plan	Schedule A, Part 3, Requirement 26, Ecological Management Plan

4.2 Assessment methodology

37. Due to careful site selection it is considered that the majority of sensitive receptors will be avoided and therefore there will not be direct impacts upon them. Where the onshore cable route crosses sensitive features (e.g. major water bodies and four designated sites listed in paragraphs 19 and 20) direct impacts are avoided by HDD (i.e. the cables will pass beneath them). Impacts should also be seen in the light of other embedded mitigation such as the development of a Code of Construction Practice (CoCP) and the development of an Ecological Management Plan (EMP) (as listed in Table 4).

38. The impact assessment will be undertaken with the embedded mitigation as the starting point (i.e. there will not be an assessment of impact followed by an assessment of residual impact).

39. The assessment approach will use the conceptual 'source-pathway-receptor' model. The model identifies likely environmental impacts resulting from the proposed construction, operation and decommissioning of the windfarm and its supporting onshore electrical transmission works. This process provides an easy to follow assessment route between impact sources and potentially sensitive receptors ensuring a transparent impact assessment. The parameters of this model are defined as follows:

- Source – the origin of a potential impact (noting that one source may have several pathways and receptors);
- Pathway – the means by which the effect of the activity could impact a receptor; and
- Receptor – the element of the receiving environment that is impacted.

4.2.1 Defining and Assessing Impacts

40. The guidance issued by IEEM for the EIA (IEEM, 2006) will be used as the basis for the steps in the assessment process and the definitions that are used in that process.

Table 5 Suggested definitions of the different sensitivity levels for receptors

Sensitivity	Definition
High	Individual receptor (species or habitat) has very limited or no capacity to accommodate, adapt or recover from the anticipated impact.
Medium	Individual receptor (species or habitat) has limited capacity to accommodate, adapt or recover from the anticipated impact.
Low	Individual receptor (species or habitat) has some tolerance to accommodate, adapt or recover from the anticipated impact.
Negligible	Individual receptor (species or habitat) is generally tolerant to and can accommodate or recover from the anticipated impact.

41. In addition, for some assessments the 'value' of a receptor may also be an element to add to the assessment where relevant – for instance if a receptor is a designated feature (i.e. ecological, geological or historic) or has an economic value.

42. It should be noted that high value and high sensitivity are not necessarily linked within a particular impact. A receptor could be of high value (e.g. Annex II species) but have a low or negligible physical/ecological sensitivity to an effect. Potential impact significance will not be inflated simply because a feature is 'valued'. Similarly, potentially highly significant impacts will not be deflated simply because a feature is not 'valued'. The narrative behind the assessment is important here; the value of a receptor can be used where relevant as a modifier for the sensitivity (to the effect) already assigned to the receptor.

Table 6 Suggested value definitions

Value	Definition
High	Internationally or nationally important
Medium	Regionally important and/or rare
Low	Locally important and/or rare
Negligible	Not considered to be particularly important and/or rare

43. The potential magnitude of effect will be described for permanent and temporary effects, as detailed in Table 7. The thresholds for each category defining the potential magnitude of effect that can occur from a source have been determined using expert judgement and current scientific understanding ecology.

Table 7 Suggested definitions of Magnitude of Effects

Magnitude	Definition
High	Fundamental, permanent / irreversible changes, over the whole receptor, and / or fundamental alteration to key characteristics or features of the particular receptors character or distinctiveness.
Medium	Considerable, permanent / irreversible changes, over the majority of the receptor, and / or discernible alteration to key characteristics or features of the particular receptors character or distinctiveness.
Low	Discernible, temporary (throughout project duration) change, over a minority of the receptor, and / or limited but discernible alteration to key characteristics or features of the particular receptors character or distinctiveness.
Negligible	Discernible, temporary (for part of the project duration) change, or barely discernible change for any length of time, over a small area of the receptor, and/or slight alteration to key characteristics or features of the particular receptors character or distinctiveness.
No change	No loss of extent or alteration to characteristics, features or elements.

44. The significance of impacts will be assessed using the matrix presented in Table 8. Impacts shaded red or orange represent those with the potential to be significant in EIA terms.

Table 8 Impact Matrix

Receptor sensitivity	Magnitude of effect			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Minor
Low	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

45. It is important that the matrix (and indeed the definitions of sensitivity and magnitude) is seen as a framework to aid understanding of how a judgement has been reached from the narrative of each impact assessment and **it is not a prescriptive formulaic method**. Expert judgement will be applied to the assessment of likelihood and ecological significance of a predicted impact. For the purpose of this assessment we will follow the IEEM (2010) guidance which states:

'*An ecologically-significant impact is defined by IEEM (2010) guidelines as 'an impact that has a negative, or positive, effect on the integrity*[11] *of a site or ecosystem and/or the conservation objectives for habitats or species populations within a given geographical area. In this way significant impacts are distinguished from other, lesser (and, in the context of EIA, unimportant) effects*'

4.3 Potential Impacts

46. A range of potential impacts on onshore ecology may occur during the construction, operation and decommissioning of East Anglia THREE and FOUR, with these being described in the following section.

47. **It is expected that the list of potential impacts and methodologies for assessment used in the EIA will be agreed in ETG meeting 1.**

48. **It is expected that the initial impact assessment will be discussed and agreed (as far as possible) in ETG meeting 2.**

49. **It is expected that the impact assessment and any mitigation required will be discussed and agreed (as far as possible) in ETG meeting 3.**

4.3.1 Potential impacts during construction

4.3.1.1 Impacts to statutory and non-statutory designated sites

50. No statutory sites would be impacted by the landfall. One non-statutory site is crossed by the landfall, Suffolk Shingle Beaches CWS, which is designated for its vegetated shingle and associated invertebrates. At the landfall point the shingle is unvegetated, with vegetated shingle is approximately 300m to the south-west, therefore there will be no impacts on shingle plant communities. There may be some temporary disturbance to invertebrates from the presence of construction plant on the beach.

51. The Deben Estuary SPA, Ramsar and SSSI and the Suffolk Coasts and Heath AONB would be crossed by the onshore cable route. Use of HDD to drill under the estuary will prevent the potential for direct impacts to the site and its features. Potential impacts upon relevant habitats of the AONB (saltmarsh, mudflats, wetlands, shingle beach and woodland) are covered below. Impacts upon most non-statutory sites would be avoided via the routeing of the cable or by use of trenchless techniques such as HDD to prevent direct impacts.

[11] The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

52. There are no statutory or non-statutory designated sites at the Indicative Converter Station location and therefore no impacts are anticipated.

4.3.1.2 Permanent and temporary loss of habitats

53. At the landfall, the location of the works avoids vegetated areas of shingle. There is potential for impacts upon maritime cliffs and slopes (a BAP habitat) from construction of temporary vehicle access over the cliff. Use of HDD will minimise any permanent habitat loss to this feature.

54. The main habitats impacted along the onshore cable route would be arable, woodland, scrub and hedgerow with some grassland habitats also disturbed. The majority of impacts upon saltmarsh, swamp, watercourses (including rivers) and ponds would be avoided by careful selection of the route and crossing points and use of trenchless techniques where necessary. There will be some permanent habitat loss associated with construction consolidation sites and access. Key considerations are likely to be habitats for bat, water vole, otter, badger and potentially invertebrates, reptiles and great crested newt.

55. The construction of the converter station will result in permanent habitat loss at the converter station compound of around 3ha; there will also be small areas of habitat lost for access tracks, landscaping and drainage. There are no sensitive habitats at the Indicative Converter Station location.

4.3.1.3 Temporary habitat fragmentation and species isolation

56. There is potential for temporary habitat fragmentation and species isolation as a result of construction, particularly with regard to the onshore cable route. As part of embedded mitigation habitat removal would be restricted to a minimum working width where possible.

4.3.1.4 Impacts upon protected species or upon their resting or breeding sites

57. The potential exists for protected species to be impacted by construction activities either physically or from disturbance. Of key concern will be water vole, otter, bats, badger, great crested newt, reptiles and certain invertebrates.

4.3.1.5 Spread of non-native, invasive species

58. There is potential for the presence of non-native invasive species, which could be spread by construction activities. Control of invasive species would be incorporated in a project specific Ecological Management Plan.

4.3.2 Potential impacts during operation

59. Planned maintenance for the converter station is likely to be highly localised with a minimal likelihood of disturbance expected to habitats and species. During

operation of the converter station there would be continual operational noise and lighting impacts which have the potential to impact bats through illumination of adjacent habitats.

60. In the unlikely event of a cable failure there may be a need to access the buried cables to enable the replacement of a failed cable section. Such unplanned repairs are expected to have potential impacts similar to those of construction, however they are likely to be more localised, of smaller scale and temporary.

4.3.3 Potential impacts during decommissioning

61. It is not proposed that the cable would be removed from the ground following decommissioning and therefore no impacts are anticipated, however where cables have been installed in pre-installed ducts it may prove possible to extract the cables relatively easily during the decommissioning phase. No decision has been made regarding the final decommissioning policy for the converter station, as it is recognised that industry best practice, rules and legislation change over time. The decommissioning methodology cannot be finalised until immediately prior to decommissioning; but would be in line with relevant policy at that time.

4.3.4 Cumulative and in-combination impacts

62. Cumulative impacts will be considered as part of the EIA process. This will require a desk-top exercise and consultation with local stakeholders to identify potential projects with which there could be interactions. In the scenario in which no elements of the onshore infrastructure required to connect East Anglia THREE and East Anglia FOUR to the National Grid are consented as part of the East Anglia ONE application, there is the potential for cumulative impacts from construction of the onshore electrical transmission works of up to three separate windfarm projects during three separate periods.

4.4 Agreed positions with regard to onshore ecology for East Anglia ONE

63. The positions relevant to onshore ecology agreed between EAOW and Natural England in the Statement of Common Ground (SoCG) for East Anglia ONE are listed below in Table 9. In addition to these points, the agreements regarding Principles of Development (as set out in Section 2 of the SoCG, which were either agreed, principles agreed or agreed subject to implementation) should be noted as these refer to the site selection of the onshore elements.

64. EAOW see these positions as the starting point for discussions for East Anglia THREE and East Anglia FOUR.

Table 9 Extract from Statement of Common Ground agreed between EAOW and Natural England, July 2013

ID	Topic	Conclusion
	Data Collection and Description of the Baseline Environment	
4.2	The Environmental Statement adequately characterises the baseline relevant to onshore ecology	Agreed
	Impact Assessment Methodology	
4.4	The impact methodology as set out in each assessment chapter provides an appropriate approach to assessing potential impacts of the proposed East Anglia ONE project on onshore ecology (other than ornithology)	Agreed
	Environmental Impact Assessment and Mitigation	
4.5	Assuming agreed mitigation is implemented, the proposed development is not considered to have a detrimental effect on non-designated countryside.	Agreed
4.6	Assuming agreed mitigation is implemented, the proposed development is not considered likely to damage the ecological and geological features of interest of relevant SSSIs or other protected sites, eg County Wildlife Sites. The parties are agreed that adequate mitigation can be secured for bats at the converter through the implementation of the proposals agreed through the Landscape and Ecological Management Strategy.	Agreed
4.7	Assuming agreed mitigation is implemented, the proposed development is not considered to have a detrimental effect on onshore European Protected Species. The parties are agreed that adequate mitigation can be secured for bats at the converter through the implementation of the proposals agreed through the Landscape and Ecological Management Strategy. Where mitigation requires the granting of a Natural England licence, the measures proposed are considered to be in line with Natural England guidance	Agreed

4.5 Habitats Regulations Assessment (HRA) and European Protected Species (EPS)

65. Given that there are no direct overlaps with statutory designated sites and assuming that the mitigation already agreed for East Anglia ONE will be adhered to for East Anglia THREE and East Anglia FOUR, it is considered that there will be no pathways for Likely Significant Effect (LSE) in the HRA context or adverse effects on EPS.

66. EAOW therefore propose that LSE for all onshore habitats and species will be screened out within the HRA Screening Report.

67. **It is expected that the conclusions with regard to HRA and EPS will be agreed in ETG meeting 1.**

5 EVIDENCE PLAN PROGRAMME AND STRATEGY

Date	Event
October/ November 2013	**Project design available**
November /December 2013	Ecology ETG meeting 1 Baseline Methods Cumulative Assessment Statement of Common Ground (SoCG)
November /December 2013	HRA screening
February 2014	Ecology ETG meeting 2 Draft PEI workshop Impact assessment Thresholds, significance SoCG
April 2014	(HRA draft report EA 3 & EA4)
May 2014	**PEI submission (draft ES) EA 3 & EA4**
August 2014	(HRA final report EA 3)
Summer 2014	Ecology ETG meeting 3 PEI feedback DCO conditions Mitigation and monitoring SoCG
November 2014	**DCO application EA 3**
Spring 2015	**DCO application EA 4**

68. Given the level of prior agreement and available data it is proposed that the Evidence Plan process for onshore ecology is limited to a series of teleconferences (with the potential for a post-PEI workshop in summer 2014).

6 REFERENCES

East Anglia Offshore Wind (EAOW) (2012a) East Anglia ONE Offshore Windfarm Preliminary Environmental Information Report. February 2012

East Anglia Offshore Wind (EAOW) (2012b) East Anglia ONE Offshore Windfarm Environmental Statement

Joint Nature Conservation Committee (JNCC) (2010), Handbook for Phase 1 habitat survey - a technique for environmental audit, ISBN 0 86139 636 7

APPENDIX 1: ONSHORE ECOLOGICAL SURVEYS UNDERTAKEN FOR EAST ANGLIA ONE

Species/Habitat	Description	Survey Period
Extended Phase 1 Habitat Survey	Rapid assessment of the cable route corridor which aimed to identify habitats of conservation value and habitats suitable for protected species, and determine where further surveys were necessary.	September and October 2011, February to April 2012.
National Vegetation Classification (NVC) Surveys	Focused on potentially valuable botanical sites (as well as representative examples of the common habitat types) identified during the Phase 1 Habitat Survey including calcicolous grassland, unimproved and semi-improved neutral grassland, marshy grassland, woodland, waterbodies and coastal habitats. Habitats at these sites were described using the methodology of the NVC and detailed lists of vascular plants were compiled.	May - June 2012
Hedgerow Survey	Hedges were assessed against wildlife and landscape criteria in the Hedgerow Regulations 1997 to identify 'Important' hedgerows.	May 2012
Water bodies	All river and stream crossings and most ditches were selected for further survey, which involved detailed inspection of bank-side, marginal and aquatic vegetation upstream and downstream of the crossing points, and the compilation of species lists.	May - June 2012
Invasive Plant Survey	Locations of invasive plant species were recorded.	March - June 2012
Bat Tree Assessment	All mature trees suitable for roosting bats along the Preferred Onshore Cable Corridor and around the converter station compound (Refined Area of Search) were assessed from the ground using binoculars to identify any features that might be suitable for roosting bats. All trees were graded according to their potential to support roosting bats and their location marked on maps.	February - May 2012
Bat Tree Inspections	Trees identified as having features with high potential for roosting bats (were climbed for full inspection. The trees were climbed using ladders, ropes and harnesses and features examined in detail for evidence of bats.	June - July 2012
Bat Activity Survey	Activity surveys were undertaken along linear features crossed by the Onshore Cable Route and suitable for foraging and commuting bats. A combination of static detectors and manual surveys were used.	June - July 2012
Dormouse	Nut searches were undertaken in winter in woods across the route. Dormouse tubes and boxes were positioned in suitable habitat crossed by the proposed cable route and checked for nests over 5 visits between July and October.	January – August 2012
Great Crested Newt (GCN)	Waterbodies were identified within a 250m buffer of the Preferred Onshore Cable Corridor and Converter Station Refined Area of Search and assessed for their potential to support GCN. Presence/absence surveys were undertaken on all suitable waterbodies followed by population assessment surveys if GCN were found to be present.	March - June 2012

Species/Habitat	Description	Survey Period
Otter	Surveys concentrated in areas 100m upstream and 100m downstream of crossing points on all suitable watercourses. The watercourses were surveyed for signs of Otter including footprints (padding), droppings (spraints), feeding evidence, slides, paths and holts or lying-up places.	June - July 2012
Water Vole	Surveys concentrated in areas 100m upstream and 100m downstream of pipeline crossing points on all suitable watercourses and involved the systematic searching for Water Vole field signs including feeding signs, latrines, burrows, footprints, runways, food piles and actual sightings.	June - July 2012
Reptiles	Protected species presence/absence surveys were undertaken using artificial refuges placed in suitable habitat and checked on five separate occasions between May and August.	May - August 2012
Terrestrial Invertebrates	Surveys were undertaken for target species in combination with general sampling for all terrestrial invertebrate groups focusing on high value habitats.	July - August 2012
Aquatic Invertebrates	One-off samples were taken at watercourse crossing points along the Preferred Onshore Cable Corridor and analysed in the laboratory.	June 2012
Winter Birds	Monthly winter bird survey undertaken at count sectors along the River Deben, Martlesham Creek and at the landfall.	October – March 2012
Breeding Birds	A full survey of the Preferred Onshore Cable Corridor was undertaken in April with targeted locations resurveyed in May and June. All birds species identified were recorded.	April - June 2012
Badger	Locations of setts and foraging activity were recorded along the entire 160m-Preferred Onshore Cable Corridor and around the Converter Station Refined Area of Search. Any setts found were mapped and categorised.	February - June 2012

APPENDIX 2: NATURAL ENGLAND CORRESPONDENCE ON ONSHORE SURVEY

From: [redacted]
[redacted]
[redacted]
Subject: RE: EA THREE and FOUR onshore cable route surveys
Date: 14 March 2013 09:47:31

Hi Both,

Paolo, thanks for sending the information through.

I can confirm Natural England has no objections to SPR utilising surveys and data characterising the East Anglia 1 onshore cable route for the East Anglia 3 & 4 EIA purposes.

Justification and rationale as to why SPR believe that the East Anglia One survey data is fit for purpose and still valid will need to be thoroughly explained in the environmental statements for EA 3 & 4 and pre-construction survey methodologies etc will still need to be agreed in due course to meet any licence requirements.

Many thanks,

Claire

Claire Ludgate
Marine Lead Adviser
Southern North Sea Team

[redacted]

Hi Claire

Thanks for the quick response on this. I've expanded on what we would like and our current rationale below. Note I've attached the list of onshore surveys that were done for East Anglia ONE (this was also an appendix to the scoping report).

We believe that the data collected to date for the onshore works (i.e. the surveys undertaken for East Anglia ONE) covering terrestrial ecology and ornithology (see attached list) are sufficient for the purposes of EIA in that they sufficiently characterise the receiving environment. The cable route is identical to East Anglia ONE and works will be within the corridor identified as sufficient for three lots of cables, it is therefore not anticipated that any works would fall outside of the existing study area. In addition, we do not believe that any additional survey would reveal anything new, the habitats are constrained by human activities and not particularly dynamic, therefore further survey would not alter our understanding of the area. We do not believe that data from 2012 would somehow be 'out of date' by submission in 2014.

Whether the East Anglia THREE and FOUR cables are installed in pre-installed ducts or open-trenched, the data characterising the route will need to be the same - as indicated at the workshop, whether cables are pulled or new trenches dug, there will still be a requirement for large plant, temporary roads etc. and therefore in many cases similar impacts but with lower magnitudes for cable-pulling (although there would be exceptions, clearly not requiring HDD plant on site again would reduce impacts at key crossing points). Given the identical location of works to East Anglia ONE we do not see what added value new survey would provide, irrespective of the construction method. We stress that any survey should be for EIA characterisation purposes only. Further detailed work will be undertaken at the appropriate time – i.e. during pre-construction for the purposes of generating baselines for monitoring or mitigation requirements under the consent, with methodologies agreed at that time.

We would like assurance (or otherwise) that Natural England agree with our position, that the existing data are sufficient for EIA purposes and that there is no reason that they would be considered 'out of date' when submitted.

Please note that in future, communications should go directly through Keith as EAOW are coordinating all aspects of consultation for East Anglia THREE and FOUR.

Regards

Paolo

APPENDIX 3: EXTRACT FROM POSITION STATEMENT ON 2013 ASSOCIATED DEVELOPMENT GUIDANCE – ONSHORE CABLE DUCTS JULY 2013

Appendix B

Installation in ducts and cable trenching – comparative impacts

1 Introduction

Direct lay and pre-installed ducts

1.1 In the Environmental Statement for East Anglia ONE, the onshore cable route Environmental Impact Assessment is based upon the installation of cables for East Anglia ONE and ducting for cables for East Anglia THREE and East Anglia FOUR (the ducting being included as associated development).

1.2 The inclusion in the DCO submission of ducts for East Anglia THREE and East Anglia FOUR cables to be installed at the same time as the installation of East Anglia ONE cables follows on from consultation responses from local communities and Local Authorities. The overwhelming response from stakeholders was to request EAOL to minimise disturbance from cable installation and avoid a repeat of the scale of excavation, vegetation clearance and vehicle numbers as the case for East Anglia ONE, on a further two occasions for each of East Anglia THREE and East Anglia FOUR, over a number of years.

1.3 In order to understand what the construction impacts would be for the East Anglia THREE and East Anglia FOUR cable installation, this Appendix compares the potential impacts of installation of cables by means of open trenching (Option 2), and the use of pre-installed ducts (but not pre-installed jointing pits) to install those cables (Option 1).

Worst case scenario

1.4 The worst case scenarios for each of the Options discussed in this Appendix are presented in Table 1.1. Given that this is the worst case for both Options, it should be assumed that East Anglia THREE and East Anglia FOUR are constructed separately – therefore impacts would occur **twice**.

Table 1.1. Worst Case Characteristics of Option 1 and Option 2 for each of East Anglia THREE and East Anglia FOUR

	Option 1: Pre-Installed Ducts	Option 2: Open trenching
Footprint at each jointing pit	Each jointing pit requires 10 × 3m area Estimate ~60m^3 spoil	Jointing pits within the cable working width
Lay down Area	300m^2 × 40 locations	Laydown area is included in working width of 23m
Number of Jointing pits	40 locations × 2 cables per pit = 80 jointing pits	40 locations × 2 cables per pit = 80 jointing pits

	Option 1: Pre-Installed Ducts	Option 2: Open trenching
Trenching	Jointing pits only	37km×6m
CSS sites	0	Up to 9 sites (2 primary and 7 secondary)
Overall footprint	10km × 23m 300m^2 × 40 locations 30m^2 × 80 jointing pits **24.44ha**	37km×23m Area of HDD rig site/exits not contained within working width **85.1ha**
Spoil	Jointing pit spoil only	Cable trench spoil + jointing pit spoil
Access	All jointing pits would be constructed in fields adjacent to public roads and would need hedgerows removed where present (6m width). Less than 10km of haul road required in areas of difficult access (Ramsholt Marsh / East of the Deben). Future works to be undertaken to determine whether track matting is possible	Reinstatement of 37km of haul road, would require some removal of hedgerows (23m width)
HDDs required	0 locations	10 locations – would be contained mostly within working width Rig site - 2500m^2 Exit - 750m^2
Cable pulling	Up to 80 operations	Up to 80 operations
Total time period of works	Up to 28 weeks spread across a period of one calendar year	Up to 44 weeks spread across a period of two calendar years
Equipment needed	Tracked or wheeled excavator Dumper Concrete truck (about 4m^3 required per base) Generator and lights Tractor and trailer for cable drum Winch Wheeled 20T capacity vehicles for delivery of sand and removal of excess spoil Hi-ab equipped lorry for delivery of materials 4x4 pickup, covered van, or similar vehicles for construction workers	Tracked or wheeled excavator Dumper Concrete truck (about 4m^3 required per base) Generator and lights Tractor and trailer for cable drum Winch Wheeled 20T capacity vehicles for delivery of sand and removal of excess spoil Hi-ab equipped lorry for delivery of materials 4x4 pickup, covered van, or similar vehicles for construction workers
Vehicle	No CCS sites. Delivery of materials	Seven CCS sites would need to be re-

	Option 1: Pre-Installed Ducts	Option 2: Open trenching
movements	from existing yards via A12 or A14.	established. Apart from at the primary CCS sites, limited extra traffic

Assumptions underpinning the following assessment

1.5 The two options considered are based on the following assumptions:

- Works at the landfall are identical for both options and (under Option 2) are unlikely to be undertaken as part of the East Anglia ONE works; and
- Works at the converter stations are identical for both options.

2 Cable Jointing and Joint Pits – Both Options

Cable jointing and joint pits description

2.1 Cable joints would be used to connect together two separate drum lengths of cable to make a continuous cable. These would be required whichever option is used to install the cables.

2.2 The joint would be completed in a jointing pit, the excavation of which would form part of the trench excavation process during direct lay or require later dedicated construction activity if pre-installed ducts were used. The jointing pit would be back-filled following the cable jointing and the land returned to pre-construction condition.

2.3 The base of the jointing pit must be made level and a concrete slab would be installed to form a working surface. The concrete slab would remain in place following completion of the joint. The size of the jointing pit is dependent on the number of cables coming into the pit, but based on an assumption of two cables per duct, a jointing pit would measure approximately 10m by 3m and would be approximately 2m deep to the top of the level base surface. Once the jointing pit had been back-filled the cables would be approximately 1.2m below ground level.

2.4 It is likely that access provision would be made at some of the joint locations for routine integrity testing. Access could take the form of an inspection pit with a man access cover visible at surface or a small kiosk that would be about 1m high by 1m wide. Both would require some protection from impact by farm machinery.

2.5 The distance between jointing pits would be determined by a number of factors, including the length of cable on any given cable drum and any engineering constraints (such as prevention of tight bends in the route). Typical distances between jointing pits would be between 500m and 1,000m. For the smaller Horizontal Directional Drill (HDD) crossings it is likely that a jointing pit would be required on at least one side of the crossing, and for the larger HDD crossings a jointing pit would be required at both sides.

2.6 Ideally jointing pits should be situated close to the field boundaries where possible to provide easy access during construction (in the case of the cable pulling option) and to provide access to inspection pits or kiosks and minimise visual impact and disruption of farming activities.

Cable jointing and jointing pits construction methodology

2.7 The construction of a jointing pit typically requires the following:

- Polyethylene plastic membrane between the ground and concrete floor
- A flat level reinforced concrete foundation and additional sump pit at a lower level to facilitate drainage and dewatering
- Adequate wall shoring or sheet piling on all sides of the excavation to prevent collapse of soil
- Sufficient space to facilitate the cable jointing process
- Safe access and egress including provision of steps
- Generator with lighting
- Temporary Heras security fencing around the site to prevent unauthorised access
- At least 300m^2 for laydown area
- Jointing pit floor at least 150mm thick.

2.8 There is no requirement for permanent hard standing to support excavators and pulling gear for plant for construction of jointing.

2.9 The assumed plant is listed in Table 1.1.

2.10 The quantity of excavated material would be approximately 65m^3 per jointing pit. Half of this material is likely to be reused as backfill materials with the excess disposed of offsite. The jointing pit would also contain bedding sand. If a permanent manhole access was to be constructed, then, blockwork walls and cover slab would also be required.

2.11 The estimated duration of the works is 3-4 weeks per jointing pit with simultaneous operations along the route.

3 **Cable drum transport – both Options**

3.1 Each section of cable installed between jointing pits would be delivered to the jointing pit on a cable drum, transported to the site by low loader or cable trailer along public highway to nearest access point, then, where necessary, across agricultural land to the jointing pits. The particular low loader dimensions would depend on the cable length on the drum and thus the drum size.

3.2 For significant cable lengths, in excess of 900m, specialist hauliers might be required with rear wheel steering low loaders and/or tandem tractor units that could be used to navigate steep inclines. A photograph of a typical drum transport low loader and cable trailer is provided in Plate 1.

3.3 No abnormal loads to the sites would be considered in the cable pulling process, and therefore no temporary works would be required along the public highway for abnormal loads.

Plate 1: Typical tractor and trailer set up for cable drum transportation (Photo courtesy of Prysmian Group)

4 Methodology for installation of cables into pre-installed ducts – Option 1

4.1 Jointing pit locations for subsequent phases may not correspond to the locations specified for East Anglia ONE as different cable technology or an alternative supplier could be used. When the jointing pit locations had been determined each would be excavated, the pre-installed ducts exposed and a lightly reinforced concrete slab would be cast for the base of the joint pit.

4.2 The cable drum would be delivered to one of the jointing pits and a cable pulling system would be installed into the trench. As with the direct lay this may comprise a steel bond and winching system with free spinning cable rollers placed along the bottom of the trench.

4.3 Once on site, the cable drum would be raised off the ground on hydraulic jacks to enable it to spin freely when pulled. The cable would then be pulled from the drum into the trench using the pre-installed rollers, with sufficient cable pulled through to the far jointing pit to allow for jointing onto the next section. The process would be repeated for the second cable to be installed in the duct.

4.4 The main variation for installing cables in pre-installed ducts as opposed to open trenches is that cable pulling in ducts relies on the use of biodegradable water based lubricant during the pulling process.

4.5 Plate 2 illustrates a typical cable pull. In this example the sides of the excavation have been softened from vertical sides back to a safe angle to reduce the risk of collapse, rather than protection through sheet piling. The cable is shown being guided into the previously installed duct with the aid of rollers weighted down with sand bags. Also shown is the concrete slab which is required for the base of the joint pit to provide a level working area prior to jointing.

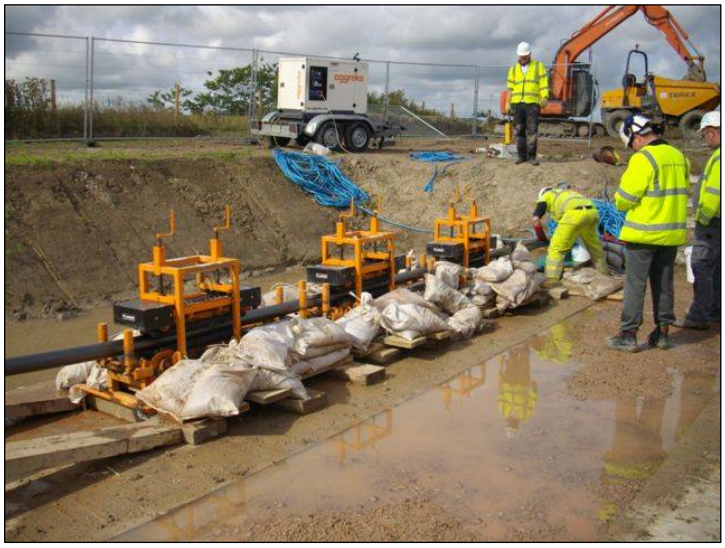


Plate 2 – Jointing pit Layout and Cable Pulling (Photo Courtesy of Prysmian)

4.6 At the same time as power cable installation the fibre optic communications cables would be installed in smaller ducts pre-installed at the same time as the cable ducts.

Pre-installed ducts - assumptions

4.7 Option 1 (pre-installed ducts) assumes that during the construction of East Anglia ONE the following are undertaken:

- Installation of up to four cables along 37km of the cable route (mostly via open trenching) with haul road along the entire length together with installation of up to 8 ducts for future projects (East Anglia THREE and East Anglia FOUR);
- Creation of up to two jointing pits at up to 40 locations along the cable route;
- HDD for up to 4 cables and 8 ducts at 10 points along the route; and
- Removal of the haul road and reinstatement of land and features along 37km of the cable route.

4.8 Therefore for **each** of East Anglia THREE and East Anglia FOUR the following works would then be required at a later date:

- Creation of up to two jointing pits at up to 40 locations along the cable route;
- Transport to site, cable pulling and jointing at up to 40 jointing pits;
- Temporary lay-down areas of 300m^2 at each of up to 40 locations (assuming that one lay-down area serves both pits); and
- Access via existing roads/tracks and therefore no haul road is required except where joints are placed in remote areas. Maximum of 10km of haul road required. Temporary track matting may be required if ground conditions are very poor.

5 Installation using open trenching method – Option 2

Open trenching - assessment assumptions

5.1 This option assumes that during the construction of East Anglia ONE the following are undertaken:

- Installation of up to four cables along approximately 37km of the onshore cable route (mostly via open trenching) with haul road along the entire length except where cables are installed beneath obstacles using HDD;
- Creation of two jointing pits at up to 40 locations along the cable route;
- HDD for up to four cables at 10 points along the route; and
- Removal of the haul road and reinstatement of land and features along approximately 37km of the onshore cable route.
- Creation and use of two primary and seven secondary Construction Consolidation Sites

5.2 Therefore for **each** new project of East Anglia THREE and East Anglia FOUR the above works would be required to be repeated. A working width of approximately 23m is assumed (which is a worst case based on the width assessed for East Anglia ONE but excluding the space required for the ducts for East Anglia THREE and East Anglia FOUR (see Diagram 4-6 in Chapter 4 - Description of Development of the Environmental Statement and included as Appendix C).

6 Potential impacts associated with each option

6.1 The residual impacts presented in detail in the Environmental Statement for East Anglia ONE serve as a basis to compare the two options and their associated impacts. Note that the order of topics (and impacts within each topic) aligns with the Environmental Statement and is not based upon any order of impact.

Table 1.2. Potential Impacts on Ground Conditions and Contamination

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Excavation of material for cable trench	Smaller footprint with isolated disruption.	Far greater footprint and continuous linear disruption.
Local changes to geomorphology at open cut watercourse crossings.	Smaller footprint with isolated disruption.	Far greater footprint and continuous linear disruption.
Impact to soils from fuel, lubricants, chemicals, waste materials, dust, sediment in surface water and cement slurry	This would be covered by EMP, therefore no impact/impact mitigated and within compliance limits	This would be covered by Ecological Management Plan (EMP) therefore no impact/impact mitigated and within compliance limits
Remobilisation of existing contamination due to construction		

activities (impact to groundwater)		
Contamination of groundwater by construction operations		
Disturbing existing drainage systems/impacts to private water supplies.		
Conclusion	Overall use of pre-installed ducts would produce a lower impact through a reduction in the area to be excavated. Most clear is the removal of the need to trench the extent of the cable route, with excavations required for jointing pits only.	

Table 1.3. Potential Impacts on Air Quality

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Dust impact for ecology/Dust Soiling / PM10	Less dust on site and less transport of spoil off site	Greater excavation, more dust on site and greater transport of spoil off site
Vehicle emissions	Construction traffic flows along the proposed access routes were of an order considered to generate not significant air quality impacts.	Construction traffic flows along the proposed access routes were of an order considered to generate not significant air quality impacts.
Conclusion	Overall use of pre-installed ducts would produce a lower impact than undertaking direct cable laying for each of East Anglia THREE and East Anglia FOUR. This conclusion is reached through the removal of the need to undertake excavations and direct cable lay across the length of the onshore cable route. Option 1: pre installed ducts requires excavations of jointing pits only.	

Table 1.4. Potential Impacts on Water Resources and Flood Risk

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Properties in Flood Zones	Not significant	Not significant
Flood defences	No works required	HDD required below defences
Groundwater	This would be covered by EMP therefore no impact/impact mitigated and within compliance limits	This would be covered by EMP therefore no impact/impact mitigated and within compliance limits
Surface water quality to suspended solid content		
Surface water quality to Pollution		
Abstractions		

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Private water supplies		
Conclusion	Overall use of pre-installed ducts would produce a lower impact as the extent of construction work would be reduced both in area and duration. The opportunity for unforeseen events or accidental spillages or releases would also be reduced or removed through the use of Option 1.	

Table 1.5. Potential Impacts on Land Use

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Agricultural Land/ Loss of growing season	Smaller footprint with isolated disruption.	Far greater footprint and continuous linear disruption during the 44 week period of construction. Impact in EA ONE ES negligible
Agri-environment schemes	**Potential** to avoid disruption	Impact in EA ONE ES negligible
Notifiable animal diseases	This would be covered by EMP therefore no impact/impact mitigated and within compliance limits	This would be covered by EMP therefore no impact/impact mitigated and within compliance limits
Injurious weeds and invasive plant Species		
Public Rights of Way (PRoW)/ Cycle routes	**Potential** to avoid disruption	35 PRoW disrupted, no closures of cycle routes
Conclusion	Lesser impacts from use of pre-installed ducts as the extent of construction work would be reduced both in area and duration; for example there is a greatly reduced requirement for excavation through Option 1. Greater flexibility also exists in the ability to micro site jointing pits and associated laydown areas to minimise impacts further, and to avoid most sensitive areas. This flexibility would not be possible if Option 1 was refused.	

Table 1.6. Potential Impacts on Ecology

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Statutory designated sites	No impact	New HDD with associated noise and vibration impacts
Non-statutory designated sites	No impact	New HDD with associated noise and vibration impacts
Habitats	Smaller isolated footprints, hedgerows would largely be avoided (previously removed	Far greater footprint and a continuous linear disruption. Hedgerows for example would

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
	and reinstated). Flexibility to avoid sensitive habitats Haul road only required in remote parts (worst case 10km non-continuous) plus some removal of hedgerows (6m sections for access)	be impacted. Haul road key disruption for 37km (23m corridor)
Watercourses and ponds	Unlikely to be impacted	Although HDD is used to minimise impacts, temporary impacts are likely at a local level on rivers and streams.
Species	Potential impacts at a local level. Flexibility to avoid sensitive species/trees Unlikely to avoid some disruption in Deben marshes (i.e. to Cetti's warbler, marsh harrier) as limited existing access	Impacts at a local level
Conclusion	With Option 1, the only associated excavations would be related to constructing jointing pits, with hedgerow clearance assumed to be a worst case of 6m associated with cable drum delivery. Within Option 2, excavations would be required along the length of the onshore cable route, and hedgerows would be required to be cleared to enable the direct laying of cables across a 23m swathe. Through this reduction in the requirement for soil excavation and watercourse crossings the potential impacts to watercourses and hedgerows would be greatly reduced. Similarly, through Option 1 there is a great reduction in the length of the haul road from 37km to an estimated worst case of 10km. In addition, there exists the possibility with Option 1 to micro-site jointing pits and laydown areas to minimise impacts and avoid most sensitive areas.	

Table 1.7. Potential Impacts on Archaeology and Cultural Heritage

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Buried Archaeology	WSI would mitigate impacts	WSI would mitigate impacts
Heritage assets	Avoided by initial route selection	Avoided by initial route selection
Conclusion	Overall use of pre-installed ducts would have lower potential impact, primarily through the reduction in the working duration and made possible by the reduction in excavation required. However, as all activities would be carried out under WSI the ultimate	

	impacts would be negligible/mitigated for either option

Table 1.8. Potential Impacts on Noise and Vibration

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
HDD		
Noise & Vibration	0 locations	10 locations
Jointing pits		
Noise and Vibration	Up to 40 locations (noise from equipment listed in Table 1.1)	Up to 40 locations (noise from equipment listed in Table 1.1)
Traffic		
Noise & vibration	Less vehicle movements	More vehicle movements (plant infrastructure and spoil transport).
Conclusion	There is a clear reduction in the noise and vibration impact by adopting Option 1. This is primarily as a result of the reduced excavation required, the removal of the requirement to undertake HDD of major obstacles at ten locations for each of East Anglia THREE and East Anglia FOUR, and the resulting reduction of vehicle movements.	

Table 1.9.Potential Impacts on Traffic and Transport

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Road Safety	Lower volume of vehicle movements	Greater volume of vehicle movements
Congestion and driver delay		
Severance		
Pedestrian delay		
Dust and dirt		
Conclusion	Overall, the implementation of Option 1: use of pre-installed ducts, would greatly reduce the number of vehicles on site during the cable installation phase, than if Option 2 were adopted. This is shown most clearly in the removal of the need for transporting excavated soil around and off the site in the direct cable lay method. Minimal excavations would be undertaken through Option 1 at the jointing pits, as opposed to along the full 37km long onshore cable route. This would therefore result in a lower impact.	

Table 1.10. Potential Impacts on Landscape

	Option 1: Pre-Installed Ducts	Option 2: Open Trenching
Dwellings	Isolated working areas likely to be close to access. Increased flexibility through micro-siting to minimise impacts. At jointing pits access point 6m of hedgerows would need to be removed.	Continual linear development along the 37km long onshore cable route during construction. No flexibility to minimise impacts. At hedgerow crossings 31m widths removed.
Roads		
Railway		
Local Footpaths		
Promoted Footpaths		
Conclusion	Overall use of pre-installed ducts would produce a lower impact as there would be less construction plant, lighting, and natural landscape disturbance than that associated with Option 2. This is best shown in the reduction of the working width. For Option 1, works are focussed on the jointing pit and the access to the jointing pit. For option 2, the works would form a 37km long and 23m wide onshore cable route. Option 1 would therefore, enable potential for micro-siting to avoid sensitive areas and reduce effects on hedgerow re-instatement following construction of East Anglia ONE.	

7 Summary

7.1 The key difference between the two options is the removal of the need to trench the approximate 37km length of the onshore cable route, with excavations required for jointing pits only. Linked to the removal of trenching is the reduction of disruption along the entire length of the route as the length of the haul road would be reduced if pre-installed ducts were used. It is assumed that access to pre-installed ducts would be possible from existing roads or tracks with minimal requirement for new haul roads or access.

7.2 At the scale of communities and individuals there are clear differences in the disruption between Option 1 and Option 2 both in the duration of activity, the excavations, traffic and transport and the haul road requirement. As the overwhelming response from consultation with stakeholders was to minimise impacts at the scale of communities and individuals, Option 2 does not meet this consultation request. Option 1, the installing of ducts to enable the pulling through of cables at a later date, and therefore reducing the excavations, vegetation clearance, vehicle numbers and overall duration, clearly responds to this request and ultimately this would be preferable at the local level to Option 2.

8 Conclusion

8.1 Following this review, it is apparent that Option 1: use of pre-installed ducts, clearly generates a benefit to communities through the minimisation of impacts on land use and amenity through a reduction in construction disturbance,

8.2 The benefits of adoption Option 1 are observed most clearly in the following areas:

- the removal of the need to trench the 37km length of the cable route, with excavations required for jointing pits only;
- the great reduction in the quantity of excavated soil being transported around and off the site;
- the reduction in duration and general area of effect of the cable installation works;
- the removal of the requirement to undertake HDD of major obstacles at ten locations for each of East Anglia THREE and East Anglia FOUR,
- the reduction of overall vehicle movements on the public highway;
- the large reduction in the length of the haul road from 37km to an estimated worst case of 10km;
- the potential for micro-siting to avoid sensitive areas and the reduction of effects on hedgerow re-instatement following construction of East Anglia ONE; and,
- The opportunity for accidental spillages or releases to be reduced or removed.

APPENDIX 4: MITIGATION MEASURES COMMITTED TO IN THE ENVIRONMENTAL STATEMENT FOR EAST ANGLIA ONE

Part 2

Appendix 2I

Environmental Statement Mitigation Measures Commited to in the Environmental Statement

Topic	Phase	Description of Impact	Mitigation Measures	Control
Project Description	Construction/ Operation		Converter station finish and colour: Recessive colour scheme to be used, Photomontage images submitted with the ES show suggested mitigation of olive green facades and grey roof. Commitment is to use regressive colours and a non reflective finish	Schedule A, Part 3, Requirement 18, Detailed design approval
Project Description	Construction/ Operation		Converter station ridge height (maximum height limited to 25m)	Schedule A, Part 3, Requirement 18, Detailed design approval (3)
Project Description	Construction/ Operation		Maximum overall width of Converter Hall buildings 130m	Schedule A, Part 3, Requirement 18, Detailed design approval (4)
Project Description	Construction/ Operation		Maximum length of Converter Hall buildings 85m	Schedule A, Part 3,Requirement 18, Detailed design approval (4)
Project Description	Construction/ Operation		Compound size 150m wide x 190m long	Schedule A, Part 3, Requirement 18, Detailed design approval (6)
Project Description	operations		Max height of ancillary buildings, Air Insulated Switchgear and other external equipment – 9m	Schedule A, Part 3, Requirement 18, Detailed design approval
Project Description	Construction/ Operation		Height of flooring for Converter Hall buildings 54m AOD	Schedule A, Part 3, Requirement 18, Detailed design approval (5)
Project Description	Construction		Maximum working width (normal cable route) 55m (not at hedgerows and water courses).	Schedule A, Part 3, Requirement 18, Detailed design approval (7)
Project Description	Construction		Maximum working area horizontal directional drill (HDD) locations 160m	Schedule A, Part 3, Requirement 18, Detailed design approval (7)
Project Description	Construction		Working width at hedgerows 35m. Influenced by archaeological, ecological and landscape considerations.	Schedule A, Part 3, Requirement 27 Code of Construction Practice (CoCP) Schedule A, Part 3, Requirement 26 Ecological Management Plan
Project Description	Construction		Proximity to water courses – no spoil storage within 5m of a water course	Schedule A, Part 3, Requirement 26, Ecological Management Plan Schedule A, Part 3, Requirement 27: CoCP
Project Description	Construction		Number and size of jointing pits at landfall - 12	Schedule A, Authorised project, Work No 4
Project Description	Construction		Maximum number export cables EA ONE - 4	Schedule A, Authorised project,
Project Description	Construction		Maximum number ducts for future projects - 8	Schedule A, Authorised project,
Project Description	Construction		Construction Consolidation Sites (CCSs) – seven sites locations specified — area of Primary CCSs capped at 15,000m2, area of Secondary CCSs capped	Schedule A, Authorised project

Topic	Phase	Description of Impact	Mitigation Measures	Control
			at 10,000m2	
Project Description	Construction		Use of HDD at specified locations. Landfall, Deben Estuary, Kirton Creek, Railway, Martlesham, A12, Bealings, A14, River Gipping and Railway, and Millers Wood.	Schedule A, Authorised project, Schedule A, Part 3, Requirement 18 Detailed Design Approval (8)
Ground conditions	Pre-construction, Onshore Cable Route and Onshore Converter Station	Effect on geology, soils, ground water, existing drainage and water supplies	Pollution Prevention Plan and Emergency Response Plan to form part of the Code of Construction Practice.	Schedule A, Part 3, Requirement 27, Code of Construction Practice.
Ground conditions	Pre-construction, Onshore Cable Route and Onshore Converter Station	Effect on geology, soils, ground water, existing drainage and water supplies	Site waste management and HSE plans to be prepared and personnel to be fully trained	Schedule A, Part 3, Requirement 27, Code of Construction Practice
Ground conditions	Pre-construction, Onshore Cable Route and Onshore Converter Station	Effect on existing services	Consult existing service plans and carry out service line location survey, including radio detection, ground penetration radar, vacuum excavation To seek agreement with Statutory Undertakers to cross services.	Schedule A, Part 3, Requirement 27, Code of Construction Practice Schedule K
Ground conditions	Pre-construction, Onshore Cable Route - landfall	Effect on cliff stability	Use of HDD techniques at landfall	Schedule A, Authorised project, Schedule A, Part 3, Requirement 18 Detailed Design Approval (8)
Ground conditions	Pre-construction, post-construction. Onshore Cable Route	Effect on land	Full reinstatement to original condition of land following construction of onshore cable route, temporary access areas/access roads, and construction consolidation sites	Requirement 34, Restoration
Ground conditions	Construction	Effect on soils	Separate storage of topsoil and subsoil	Schedule A, Part 3, Requirement 27, code of Construction Practice
Ground conditions	Construction	Effect on soil trafficking	Set vehicle speeds along Construction Access Routes and haul road	Schedule A, Part 3, Requirement 27, code of Construction Practice
Ground conditions	Construction	Effect on geology, soils, ground water, existing drainage and water supplies	If contamination encountered during the SI then review risks and undertake further works as appropriate	Schedule A, Part 3, Requirement 24, Contaminated land and ground water
Ground conditions	Construction	Effect on geology, soils, ground water, existing drainage and water supplies	Cable route passes through an historical landfill site (Tuddenham St Martin), detailed site investigation and a remediation strategy should be developed for this area.	Schedule A, Part 3, Requirement 24, Contaminated land and ground water
Ground conditions	Pre-construction	Effect on private	Identify landowners with private water supply and maintain potable water	Requirement 27, Code of Construction Practice

Topic	Phase	Description of Impact	Mitigation Measures	Control
		water supplies	supply	
Air Quality	Construction	Effect on local air quality on ecology and soiling	Air Quality Management Plan part of the CoCP	Requirement 27, Code of Construction Practice
Water resource and Flood Risk	Construction	Impact on flood defences	Use of HDD at key locations along the route.	Requirement 27, Code of Construction Practice
Water resource and Flood Risk	Construction	Impact on hydrology, flood risk, water resources and water quality	Crossing methods reviewed and agreed with Environment Agency prior to construction commencement. CoCP detailing best practice construction techniques. Stockpiling excavated materials no closer than 5m from watercourse to reduce impact of mobilisation of material.	Requirement 27, Code of Construction Practice
Water resource and Flood Risk	Construction / Operation	Impact upon Hydrology, water resources and water quality	Mitigation would include the use of appropriate measures as outlined in the Environment Agency Pollution Prevention Guidance (PPGs) to prevent spillage of potentially polluting substances, whilst also including a range of measures incorporated in the CoCP.	Requirement 27, Code of Construction Practice
Water resource and Flood Risk	Operation	Impact on hydrology, flood risk, water resources and water quality	Where works in proximity to flood defences, structural assessment undertaken prior to works commencing A surface water drainage scheme for the converter station and use of Sustainable Drainage Systems to ensure that runoff rates from the converter station do not exceed pre-developed rates	Requirement 27, Code of Construction Practice Schedule A, Part 3, Requirement 23.
Water resource and Flood Risk	Decommissioning	Impact on hydrology, flood risk, water resources and water quality	Field drains reinstated to pre-construction condition.	Requirement 34, Restoration
Land Use	Construction	Impact on Public Rights of Way (PRoWs)	Various commitments made around PROW with regards to duration of closures and provisions of alternative routes.	Requirement 27, Code of Construction Practice
Land Use	Construction	Impact upon access to severed fields due to construction works	Provisions of temporary access for vehicles and machinery where impacted by construction	Schedule A, Part 3, Requirement 21 Highway Access; Requirement 27 Code of Construction Practice; and, Requirement 32 Travel Plans
Land Use	Pre-construction	Impact on agricultural usage of the land	Before construction begins, a qualified agricultural liaison officer (ALO) would be employed to ensure that information on existing agricultural and land conditions is obtained, recorded and verified during the record of condition survey.	Requirement 27, Code of Construction Practice
Land Use	Pre-construction	Impact on agricultural usage of the land	The pre construction land survey (undertaken by the ALO) would record details including existing crop regimes, the position and condition of field boundaries, existing drainage and access arrangements, and private water	Requirement 27, Code of Construction Practice

Topic	Phase	Description of Impact	Mitigation Measures	Control
			supplies.	
Land Use	Construction	Best practice soil handling to prevent the spread of plant and animal diseases.	Should any animal remains be discovered during the construction phase that indicate a potential burial site (e.g. in relation to foot and mouth), the main works contractor would cease all work and immediately advise the Animal Health Regional Office accordingly.	Requirement 27, Code of Construction Practice
Land Use	Operations	Impact upon removal of fences, hedgerows, and ditches.	Prompt reinstatement of fences, sections of hedgerows, hedgebanks, ditches and culverts removed or disturbed during construction. Suitable maintenance (typically 5 years) of any newly planted sections of hedgerow, shelterbelts and woodlands following construction.	Schedule A, Part 3, Requirement 26, Ecological Management Plan
Ecology and Ornithology	Construction	Potential to reduce the available foraging and roosting habitat for bats.	No 24hr lighting unless HDD, or CCS (or road crossing occurring overnight)	Schedule A, Part 3, Requirement 28 (External lighting and control of artificial light emissions) Requirement 26 Ecological Management Plan
Ecology and Ornithology	Construction	Impact on habitat	Reduced working width to 35m is proposed at all hedgerows and watercourse crossings where possible	Schedule A, Part 3, Requirement 27 Code of Construction Practice Schedule A, Part 3, Requirement 26 Ecological Management Plan
Ecology and Ornithology	Pre-construction	Impact on protected species	Undertake pre-construction surveys in relation to protected species, Annex 1 and Schedule 1 birds to ensure mitigation is based on up-to-date survey data.	Schedule A, Part 3, Requirement 33, European Protected Species
Ecology and Ornithology	Construction	Impact on protected species	Mitigation for protected species (great crested newt, reptiles and water vole – undertaken in accordance with license conditions). For example: -Bat boxes will be provided where trees which have features suitable for roosting bats are lost. -Great Crested Newt mitigation will be carried out under licence from Natural England. -Reptile mitigation in the form of translocation and/or hand searches would be implemented during vegetation clearance. -Water Vole mitigation would involve dissuasion and/or translocation. -Night time working would be limited near watercourses to minimise impacts on Otters.	Schedule A, Part 3, Requirement 33, European protected Species and Schedule A, Part 3, Requirement 26, Ecological Management Plan
Ecology and Ornithology	Construction	Effect on foraging and commuting of bats	Appropriate reinstatement of hedgerows	Schedule A, Part 3, Requirement 26, Ecological Management Plan
Ecology and Ornithology	Construction	Impact on sensitive ecology	Generally a large number of commitments are made around ecology and working practices which are to be translated into the Ecological Mitigation	Schedule A, Part 3, Requirement 26, Ecological Management Plan

Topic	Phase	Description of Impact	Mitigation Measures	Control
			Plan	
Archaeology and Cultural Heritage	Pre-construction and Construction	Impact on heritage assets	All of the proposed mitigation and pre-construction survey work would be detailed in a 'Written Scheme of Investigation' (WSI). Details of which to be agreed and discharged as a requirement of the DCO. One WSI for the converter station and one for the cable route. The latter WSI is likely to include commitments to pre construction geophysical survey and trial trenching (trial excavations).	Schedule A, Part 3, Requirement 25, Archaeology
Archaeology and Cultural Heritage	Construction	Impact on known second world war heritage asset at landfall	An archaeological sensitive area at the landfall will be fenced off during construction.	Schedule A, Part 3, Requirement 25, Archaeology
Archaeology and Cultural Heritage	Construction	Impact on heritage assets	Working area reduced to 35m at certain archaeologically sensitive areas. Seven areas are identified.	Schedule A, Part 3, Requirement 25, Archaeology
Noise and Vibration	Construction	General noise impacts	Training of construction workers on site to ensure noise is considered through all stages of the construction works. Careful timing of any particularly noisy activities. Implementation of a Code of Construction Practice and Traffic Management Plan which could include traffic management measures such as agreed routes for construction traffic. Development area layouts to minimise or avoid reversing vehicles. Locating highest noise emitting plant and activities farthest away from residences.	Schedule A, Part 3, Requirement 29, Control of noise during construction
Noise and Vibration	Operations	Impact on residential dwellings	Converter station design to ensure 35dB(a) at sensitive receptors as listed in the DCO.	Schedule A, Part 3, Requirement 31, Operational noise (1)
Noise and Vibration	Construction	Effect on listed buildings and non-earthwork related scheduled ancient monuments	Access to the cable route during construction only in accordance with Traffic Management Plan via certain identified key routes. The vibration effects on certain sensitive listed buildings require further assessment and may mean structural surveys / roads works are required.	Schedule A, Part 3, Requirement 21 Highway Access, Requirement 27 Code of Construction Practice Requirement 32Travel Plan
Noise and Vibration	Construction	Impact upon ecology from noise disturbance	The use of noise mitigation at HDDs at Kirton Creek, Bealings and Martlesham Creek - these could include the use of screens, and the careful location of equipment and the use of specific low impact equipment	Schedule A, Part 3, Requirement 29, written scheme for noise management
Traffic and Transport	Construction	Impact on local residents and other road users	Provision and agreement with the local authorities on a Traffic Management Plan, Travel Plan and Access Management Scheme prior to construction commencement	Schedule A, Part 3, Requirement 21; Highway Access, Requirement 32 Travel Plans; Requirement 27 Code of Construction Practice.

Topic	Phase	Description of Impact	Mitigation Measures	Control
Traffic and Transport	Construction	Impact on local residents and other road users	Undertaking dilapidation survey of construction access routes	Schedule A, Part 3, Requirement 27 Code of Construction Practice.
Traffic and Transport	Construction	Impact on local residents and other road users	The assessment makes a number of assumptions re: vehicle deliveries. These are not considered commitments but they are worst case assumptions. These assumptions relate to vehicle movements for goods and materials and personnel	Schedule A, Part 3, Requirement 21; Highway Access, Requirement 32 Travel Plans; Requirement 27 Code of Construction Practice.
Traffic and Transport	Construction	Impact on local residents and other road users	Vehicles must access the site via designated access routes and the Construction Consolidation Sites (CSSs).	Schedule A, Part 3, Requirement 21; Highway Access, Requirement 32 Travel Plans; Requirement 27 Code of Construction Practice.
Seascape, Landscape and Visual Assessment	Pre-Construction	Effect on residential dwellings, roads and PRoW	Landscape strategy to be agreed with the local authorities prior to construction commencement, this strategy will set out all mitigation measures to be employed. This will include measures to minimise impacts on hedgerows and trees, for example endeavours to use existing gaps and avoid the loss of mature trees	Schedule A, Part 3, Requirement 19; Landscaping, and Requirement 20; Maintenance of landscaping
Seascape, Landscape and Visual Assessment	Construction	Effect on residential dwellings, roads and PRoW at converter station.	Specific strategy of bunding and planting has been developed for the converter station and must be implemented	Schedule A, Part 3, Requirement 19; Landscaping and Requirement 20; Maintenance of landscaping
Seascape, Landscape and Visual Assessment	Operation	Effect on landscape	At the converter station, proposed lighting to internal access roads and walkways with task lighting operated only when and where it is required for specific inspection or maintenance work. Lights would be on columns or attached to the buildings and lamps would have directional or horizontal cut-off reflectors.	Schedule A, Part 3, Requirement 28 External lighting and control of artificial light emissions
Seascape, Landscape and Visual Assessment	Construction	Visual effect of wind turbines from coastline	The East Anglia ONE windfarm is located a minimum of 43.3km from the coastline -outside of the 12Nm territorial waters limit. This is therefore an important mitigation measure, which would result in limited seascape and visual impacts.	Schedule A, Part 1.
Project Description	Construction	Effects of the timing of the construction of the project on residential dwellings, roads and PRoW	Construction Timing for cable route is 44 weeks working 7am – 7pm Monday – Saturday save for specific requirements relating to HDD and certain deliveries. The construction timing for the landfall is 21 weeks and for the converter station 46 weeks. These periods may not be concurrent or continuous.	Schedule A, Part 3, Requirement 30, Construction hours

Topic	Phase	Description of Impact	Mitigation Measures	Control
Project Description	Construction / Operation		No wind turbine generator forming part of the authorised development shall: (a) exceed a height of 200 metres when measured from LAT to the tip of the vertical blade; (b) exceed a height of 120 metres to the height of the centreline of the generator shaft forming part of the hub when measured from LAT; (c) exceed a rotor diameter of 170 metres; (d) be less than 675 metres from the nearest WTG in either direction perpendicular to the approximate prevailing wind direction (crosswind) or be less than 900 metres from the nearest WTG in either direction which is in line with the approximate prevailing wind direction (downwind); (e) have a distance of less than 22 metres between the lowest point of the rotating blade of the wind turbine and MHWS.	Schedule A, Part 1. Schedule I, Part 2 Conditions, 1 Design Parameters
Project Description	Construction / Operation		The total number of offshore substations forming part of the authorised development shall not exceed 5. (2) The dimensions of any HVAC offshore collector stations forming part of the authorised development (excluding towers, helipads, masts and cranes) shall not exceed 60 metres in height when measured from LAT, 30 metres in length and 40 metres in width. (3) The dimensions of any HVDC offshore converter stations forming part of the authorised development (excluding towers, helipads, masts and cranes) shall not exceed 60 metres in height when measured from LAT, 75 metres in length and 120 metres in width.	Schedule A, Part 3, Requirement 5. Schedule I, Part 2 Conditions, (3) Coordinates for Restricted Build Area.
Project Description	Construction / Operation		The total length of the cables comprising Work No. 3A (export cables) shall not exceed 400 kilometres. The total length of the cables comprising Work No. 1(d) (within the windfarm) shall not exceed 680 kilometres.	Schedule A, Part 3, Requirement 6. Schedule I, Part 2 Conditions, (4)

Topic	Phase	Description of Impact	Mitigation Measures	Control
Project Description	Construction / Operation		In relation to a WTG, each gravity base foundation shall not have: (a) a diameter at the level of the seabed which is more than 50 metres; (b) a base height, where there is a flat base and a cylindrical shaft, which is more than 10 metres above the level of the seabed; (c) a column diameter, where there is a flat or conical base, of more than 7.5 metres at sea level; In relation to a WTG, each suction caisson foundation shall not have: (a) a diameter at the level of the seabed which is more than 25 metres; (b) a base height where there is a flat base, which is more than 5 metres above the level of the seabed; (c) a column diameter which is more than 7.5 metres at sea level. In relation to a WTG, each jacket foundation shall not have: (a) a width spacing between its legs at the level of the seabed which is more than 35 metres; (b) a pile diameter which is more than 2.5 metres in the case of pin piles or a suction bucket diameter of more than 5 metres; (d) more than one pile per leg or more than one suction bucket per leg; (e) more than four legs. In relation to a meteorological mast, each monopile foundation shall not have a diameter greater than 6.5 metres.	Schedule A, Part 3, Requirement 7. Schedule I, Part 2 Conditions, (5)
Project Description	Construction / Operation		Unless otherwise agreed with the MMO (and where ground preparation can be minimised) gravity base foundations or suction caisson foundations will not be placed in areas where sandwaves are greater than 5m, therefore reducing the potential for increased suspended sediment.	Schedule I, Part 2 Conditions, 12.
Project Description	Construction / Operation		Minimum wind turbine spacing will be 675m x 900m.	Schedule A, Authorised project, Part 3 Detailed offshore design parameters (d). Schedule I, Part 2, 1 Design Parameters(d).
Project Description	Construction / Operation	Effect on sea floor sensitivities including ecology, archaeology, and infrastructure.	Micrositing will be carried out based on the findings of pre-construction geophysical survey and the following will be avoided for the placement of turbines (and 1-2 for cables where possible) 1) potential Annex I Sabellaria spinulosa reef 2) Archaeologically important sites 3) 750m set back from existing operational cables 4) 100m set back from offshore order limits)	Schedule A, Part 3, Requirement 4 (restricted build) Schedule I, Part 2, Condition 9 (a) and (h)
Project Description	Construction / Operation		Prior to construction commencement decommissioning plan must be issued to Secretary of State	Schedule A, Part 3, 17 Offshore Decommissioning
Marine Geology, Oceanography and	Operations	Impact on sediment regime	Despite there being no significant impact identified, a scour protection monitoring plan will be developed and is a requirement of the marine	Schedule I (Marine), Part 2 Conditions, Condition 9: Pre-construction plans and documentation (e)

Topic	Phase	Description of Impact	Mitigation Measures	Control
Coastal processes			license	
Marine Geology, Oceanography and Coastal processes	Construction / Operation	Impact on sediment regime	Not placing gravity base foundations in areas where sandwaves are greater than 5m.	Schedule I (Marine), Part 2 Conditions, Condition 12: Foundation Restrictions.
Marine Geology, Oceanography and Coastal processes	Decommisioning	Impact upon benthic habitat	Best practice techniques for decommissioning would be used, including ensuring no safety hazards are left in place, de-rating cables and leaving them in situ and removing all wind turbine infrastructure to below seabed level, taking account of natural variability due to mobile seabed features.	Schedule A, Part 3, Requirement 17, Offshore decommissioning
Marine Water Quality	Construction	Impact on marine water quality	Outline Construction Environmental Management Plan (OCEMP) including MARPOL compliance will be developed	Not a DCO commitment – required to comply with parent company ISO14001 commitments and other legislation and to help demonstrate compliance with DML requirements (e.g. requirements 7 and 9 relating to pollution prevention Schedule I (Marine), Part 2 Conditions, Requirement 7 Chemical, drilling and debris Schedule I, Part 2, 9 Preconstruction plans for documentation, (d) (i). Marine Pollution Contingency Plan (MPCP)
Marine Water Quality	Construction Pre-Construction	Impact on marine water quality	Marine Pollution Contingency Plan will be developed	Schedule I (Marine), Part 2 Conditions, Requirement 7 Chemical, drilling and debris Schedule I, Part 2, 9 Preconstruction plans for documentation,(d) (i). MPCP
Underwater noise and vibration	Construction	Effect on marine mammals from piling noise	Soft start procedures employed, and maximum pile size on jackets 2.5m diameter	Schedule I (Marine), Part 2 Conditions, Requirement 9 Pre-construction plans and documentation (c) (ii) Schedule I (Marine), Part 2 Conditions, Requirement 9 Pre-construction plans and documentation (f)
Underwater noise and vibration	Construction/Operations	Impact on Electro Magnetic sensitive ecology	All cables would be sheathed and armoured, which would prevent the propagation of electric (E) fields into the surrounding environment. 58 Inter-array, interconnector and export cables would be buried where possible. Cable protection measures would be applied in areas where burial is not possible, for example at cable crossings and in areas of hard ground.	Schedule I, Part 2 Conditions, 9 (e), (g)

Topic	Phase	Description of Impact	Mitigation Measures	Control
Benthic and Epibenthic environment	Construction	Impact on benthic and epibenthic habitat	Assumes 240 gravity bases foundations with 50m diameter footprint (this is in order to minimise the associated impacts following an early design option, which included up to 325 gravity base foundations). The overall assumption assuming scour protection is required is that each foundation covers an area up to 14,000m2 (i.e. 120m X 120m)	Schedule A, Part 3, Requirement 7(5)
Benthic and Epibenthic environment	Construction	Impact on benthic and epibenthic habitat	Each installation requires 3 jack ups and that each jack-up could cover an area of up to 1,200m2	Schedule I (Marine), Part 2 Conditions, 9 Pre-construction plans and documentation (c)
Benthic and Epibenthic environment	Construction	Impact on benthic and epibenthic habitat	Assumes all cables within windfarm are laid using jetted techniques as the worst case and that the area jetted is 5m swathe	Schedule I (Marine), Part 2 Conditions, 9 Pre-construction plans and documentation (c)
Benthic and Epibenthic environment	Construction	Impact on benthic and epibenthic habitat	Assumes 20% export cables jetted (5m swathe) an that 80% are trenched (50m swathe)	Schedule I (Marine), Part 2 Conditions, 9 Pre-construction plans and documentation (c)
Benthic and Epibenthic environment	Construction	Impact on benthic and epibenthic habitat	Maximum of 26,400m2 material is required for cable protection	Schedule I (Marine), Part 2 Conditions, 4 (2)
Benthic and Epibenthic environment	Construction	Impact on benthic and epibenthic habitat	Micrositing to avoid Annex 1 reef	Schedule A, Part 3, Requirement 4 (restricted build) Schedule I, Part 2, Condition 9 (a)
Benthic and Epibenthic environment	Construction/Operation/Decomissioning	Impact marine water quality	OCEMP including MARPOL compliance will be developed	Not a DCO commitment – required to comply with parent company ISO14001 commitments and other legislation and to help demonstrate compliance with DML requirements (e.g. requirements 7 and 9 relating to pollution prevention Schedule I (Marine), Part 2 Conditions, Requirement 7 Chemical, drilling and debris Schedule I, Part 2, 9 Preconstruction plans for documentation,(d) (i). MPCP
Fish Ecology	Construction	Impact on Electro Magnetic sensitive fish	Cables buried where possible and, where not possible, armoured / protected	Schedule I, Part 2 Conditions, 9 (e), (g)
Fish Ecology	Construction	Impact upon fish communities	During construction, overnight working practices would be employed so that construction activities would be 24 hours, thus reducing the overall period of time for potential impacts to fish communities in the vicinity of	Schedule I (Marine), Part 2 Conditions, Requirement 9 Pre-construction plans and documentation (b) and (d)

Topic	Phase	Description of Impact	Mitigation Measures	Control
			the East Anglia ONE site.	
Marine Mammals	Construction	Effect on marine mammals from piling noise	Marine Mammal Mitigation protocol developed and agreed with MMO	Schedule I (Marine), Part 2 Conditions, 9 Pre-construction plans and documentation,(f)
Ornithology	Operations	Effect on flying and migratory birds, with consideration of THLS and CAA requirements	Lighting in compliance with legislation but where possible seek to reduce	Schedule A, Part 3 Requirements, 9. Schedule A, Part 3 Requirements, 15.
Commercial fishing	Construction / operations	Impact on access to traditional fishing grounds, steaming times and fishing activities	Minimum spacing, appointment of FIR, relocation of static gear, minimum spacing -Rolling safety zone of no more than 500m around area of construction works -Operational safety zone of no more than 50m around each turbine	Schedule A, Part 3 Requirements, 10. Safety zone Statement
Shipping and Navigation	Construction	Effect on maritime navigational safety	Construction cannot commence until EAOW Provide an Emergency Response Co-operation Plan (ERCoP) and Compliance with MGN 371 confirmed by Maritime and Coastguard Agency (MCA)	Schedule A, Part 3 Requirements, 8 Offshore safety management
Shipping and Navigation	Construction	In the interests of marime and aviation safety	Provide aids to navigation as directed by Trinity House. Issue Notices to Mariners. Notify UK Hydrographic Office (UKHO) of windfarm details. Structures must be marked in accordance with IALA Recommendation O-139 agreed with Trinity House. Lighting in accordance with Civil Aviation Authority (CAA) requirements. Turbines submarine in colour	Schedule A, Part 3 Requirements, 9, 10,14 & 15 Aids to navigation. Schedule I, Part 2, Condition 6
Aviation	Operation	Impact on aviation safety	Lighting in accordance with CAP 393	Schedule A, Part 3 Requirement 15 Aids to navigation.
Aviation	Operation	Impact on aviation safety	Promulgation of information to CAA, NATs, UK AIP and NL AIP	Agreement to communication information through pre-application consultation commitments and compliance with best practice.
Aviation	Operation	Impact on aviation safety	Review commitments relating to mitigation of impacts for aircraft flying at low levels	Schedule A, Part 3 Requirement 15 Aids to navigation.
Telecommunications and Interference	Construction/ Operation	Impact upon non-aviation radar	A set back buffer of 1.0nm has been applied to the International Maritime Organisation (IMO) Deep Water Route to the east of the project boundary. Increasing the separation between wind turbines and marine traffic would reduce the severity of impacts on radar and telecommunication systems.	Application Documents 2.3 Work Plans

Topic	Phase	Description of Impact	Mitigation Measures	Control
Archaeology and Cultural Heritage	Construction / Operation	Impact on heritage assets	Apply buffers zones around A1 (100m maximum extent) and A3 (100m middle of find) archaeological sites, and where possible avoid A2s. Implement a WSI to deal with unknown potential. WSI can also be used to resize buffers.	Schedule I, Part 2 Conditions, 9 (h)
Infrastructure and Other Users	Construction / Operation	Impact of Unexploded Ordnance	Review commitments in 6 Alpha UXO study. Upon review of geophysical data, recovery operations using Remotely Operated Vehicles may be undertaken prior to construction to confirm details of any suspected UXO, cables or pipelines.	Schedule I, Part 2 Conditions, 9 (b, c and g)
Infrastructure and Other Users	Construction / Operation	To minimise impact and post-installation restrictions on existing cables and cable owners.	90 degree crossing of other cables where possible.	Schedule I, Part 2 Conditions, 9 (c and g)
Infrastructure and Other Users	Construction / Operation	To minimise impact and post-installation restrictions on existing cables and cable owners.	500m set back from operational cables for wind turbines.	Schedule I, Part 2 Conditions, 9 (c and g)
Traffic and Transport	Construction	Traffic Impact on local residents and other road users	No road closures required	Schedule A, Part 3, Requirement 21 Highway Access; Requirement 27 Code of Construction Practice; and, Requirement 32 Travel Plans;
Traffic and Transport	Construction	Effect on other road users from limited visibility at B1113 and Bullen Lane junction.	Junction widened by approx 1m and curb shifted	Schedule A, Part 3, Requirement 21 Highway Access Requirement 27 Code of Construction Practice
Landscape and Visual	Construction	Landscape and visual impact from revised workings at Little Bealings	Reduced working width and micro-siting potential. Alternative working method reduces duration of works	Schedule A, Part 3, Requirement 19 Provision of landscaping, and Requirement 20 Implementation and maintenance of landscaping
Ecology	Construction	Ecological impact from revised workings at Little Bealings	Reduced working width and micro-siting potential. Alternative working method reduces duration of works	Schedule A, Part 3, Requirement 18 (9) Detailed design approval onshore
Ground Conditions and Contamination	Construction	Potential impact on ground conditions and contamination form change of working methodology	Use of appropriate construction management	Schedule A, Part 3, Requirement 27 Code of Construction Practice

Topic	Phase	Description of Impact	Mitigation Measures	Control
		at Sandy Lane to trenchless techniques from open-cut and additional haul road required to access Martlesham Creek HDD site		
Traffic and Transport	Construction	Impact on other road users as haul road transiting not an option with new working methodology at Sandy Lane	Management through Traffic Management plan	Schedule A, Part 3, Requirement 21 Highway Access, Requirement 27 Code of Construction Practice
Traffic and Transport	Construction	Impact on other road users by the use of a Base Port in East Anglia during construction period	Management through Traffic Management plan	Schedule A, Part 3, Requirement 21 Highway Access, Requirement 27 Code of Construction Practice, Requirement 32 Travel Plan
Traffic and Transport	Operation	Impact on other road users by the use of a Base Port during operation of the wind farm.	Management through Traffic Management plan	Schedule A, Part 3, Requirement 21 Highway Access, Requirement 27 Code of Construction Practice, Requirement 32 Travel Plan

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23.3 C Statement of Common Ground

East Anglia ONE Offshore Windfarm

www.eastangliawind.com

East Anglia ONE
Offshore Windfarm

Onshore Statement of Common Ground

July 2013

Suffolk County Council

Mid Suffolk District Council

Suffolk Coastal District Council

Natural England

Environment Agency

East Suffolk Internal Drainage Board

Suffolk Wildife Trust

1 Introduction

1 EN010025– Application for the East Anglia ONE WindFarm

2 Onshore Statement of Common Ground (SoCG)

1.2 Background

3 This Statement of Common Ground (SOCG) has been prepared in respect of East Anglia ONE Limited's (the Applicant) application for a development consent order (DCO) to the Planning Inspectorate (PINS) under the Planning Act 2008 (the Application).

4 This SoCG is a means of clearly stating any areas of agreement and disagreement between parties in relation to the Application. The SoCG has been structured to reflect topics of interest to the consultees on the Application as guided by the Examining Authorities Rule 6 letter. It therefore presents the position in regard to onshore matters with a number of consultees as listed in point 5 below.

5 The structure of the SoCG is as follows:

- Consultation
- Topic specific matters agreed, not agreed and actions to resolve in relation to:
  - Principles of Development (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council, Suffolk County Council, Natural England, The Environment Agency, East Suffolk Internal Drainage Board and Suffolk Wildlife Trust)
  - Approach to Assessment and Policy Background (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council, Suffolk County Council, Natural England, The Environment Agency, East Suffolk Internal Drainage Board and Suffolk Wildlife Trust);
  - Biodiversity, Biological Environment and Ecology (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council, Suffolk County Council, Natural England and Suffolk Wildlife Trust);
  - Noise, Vibration, Electro-magnetic field and Health Impacts (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council and Suffolk County Council);

- Onshore Heritage and Built Environment (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council, Suffolk County Council);

- Landscape, Seascape, Visual Impacts and Design (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council, Suffolk County Council and Natural England);

- Highways and Traffic (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council and Suffolk County Council);

    - Air Quality

    - Public Rights of Way

- Drainage and Water Supply (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council, Suffolk County Council, the Environment Agency and East Suffolk Internal Drainage Board); and

- Socio – Economic Effects (Relevant to Mid Suffolk District Council, Suffolk Coastal District Council and Suffolk County Council).

6 The structure of agreements is presented in a tabular form.

7 Throughout this SOCG the term “Agreed” is used to denote any point of agreement that has been specifically stated by agreement between the Applicant and consultee. The phrase “Not agreed” is used to denote any point that the Applicant and consultee wish to clearly state as not yet agreed. Points that are “not agreed” will be the subject of ongoing discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.

8 This draft SoCG is supported by the following Appendices

- Outline Landscape and Ecological Management Strategy plus Appendices :

    - Appendix 1: Outline Converter Station Design Principles

    - Appendix 2: Schedule of Hedgerows

    - Appendix 3: Tree Protection Plan

    - Appendix 4: Ecological Mitigation Plan for the Deben SPA non-breeding birds and Schedule 1 breeding birds

  - Appendix 5: Deben Estuary crossing and adjacent cable route – avoidance of potential for impact on SPA and SSSI

- Draft Section 111/106 Agreement
- Outline Code of Construction Practice
- Outline Onshore Archaeological Written Scheme of Investigation
- Converter Station - Geophysical Survey Report
- Converter Station - Trial Trenching Survey Report
- Post Submission Report 1 and Supplementary Environmental Information
- Outline Traffic Management Plan
- Outline Access Management Scheme
- Outline Travel Plan
- Health & Safety Strategy
- Assessment of Coastal Changes at East Anglia ONE Cable Landfall
- Letter in relation to socioeconomics – with ports, skills and supply chain letters annexed
- Tourism Accommodation Report

1.3 The Development

9 The Application is for development consent to construct and operate the proposed East Anglia ONE Offshore Windfarm, which comprises up to 325 wind turbine generators and associated infrastructure, with an installed capacity of up to 1,200 MW (the Project). The Project would be located in the North Sea approximately 43.4 km from the Suffolk coast at its nearest point. The offshore array site occupies an area of approximately 300 km^2.

10 The DCO, if made, would be known as the East Anglia ONE Offshore Windfarm Order. It will comprise the following elements:

- Up to 325 offshore wind turbines, with a maximum height of 200m, to provide an installed electrical capacity of up to 1200 MW.
- Up to three offshore collector stations and up to two offshore converter stations.
- Up to one offshore meteorological mast to collect information such as wind speeds and wind direction.
- Cables buried in the seabed to link the wind turbines, the offshore stations and meteorological mast.
- Up to four offshore undersea export cables to transmit electricity from the offshore stations to the shore.
- A landfall site at Bawdsey with onshore subsurface transition pits to connect the offshore and onshore cables.
- Up to four onshore underground cables, with jointing pits, running for approximately 37 km from the landfall at Bawdsey to the connection point near Bramford, Suffolk, to transmit electricity to a new onshore converter station and up to eight additional underground cable ducts to accommodate the cables for future projects.
- An onshore converter station adjacent to existing National Grid substation near Bramford, Suffolk, to connect the offshore wind farm to the National Grid network.
- The permanent and/or temporary compulsory acquisition of land and/or rights for the Project.
- Overriding easements and other rights over or affecting land for the Project.
- The application and/or disapplication of legislation relevant to the Project including inter alia legislation relating to compulsory purchase.
- Such ancillary, incidental and consequential provisions, permits or consents as are necessary and/or convenient.

11 The Application was submitted to the Planning Inspectorate on 21 November 2012 and accepted for examination on 14th December 2012.

1.4 Application elements under consultee remit

12 This Statement relates to Work Numbers 3b to 41 (inclusive) as defined in Schedule A, Part 1 of the Draft Development Consent Order. Unless specified below, each Signing Sheet relates to all of the works described in this paragraph.

13 The works relating to the Agreement with Mid Suffolk and Babergh District Councils constitute only Work Numbers 32 to 41.

14 The works relating to the Agreement with Suffolk Coastal District Council constitute only Work Numbers 3b to 31 (inclusive).

Status and Functions of Natural England

15 The following section, for clarity sets out the status and functions of Natural England by way of context to that part of the Statement of Common Ground which relates to Natural England.

16 Natural England is a statutory body established under the Natural Environment and Rural Communities Act 2006 (the "NERC Act"). Natural England is the statutory advisor to Government on nature conservation in England and promotes the conservation of England's wildlife and natural features. It is financed by the Department for Environment, Food and Rural Affairs ("Defra") but is a Non-Departmental Public Body, which forms its own views based on the best scientific evidence available.

17 Natural England works for people, places and nature, to enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas; promoting access, recreation and public well-being, and contributing to the way natural resources are managed so that they can be enjoyed now and by future generations.

18 Section 2 of the NERC Act provides that Natural England's statutory general purpose is:

> *"… to ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development."*

19 Section 2(2) states that Natural England's general purpose includes:

- promoting nature conservation and protecting biodiversity;
- conserving and enhancing the landscape;

- securing the provision and improvement of facilities for the study, understanding and enjoyment of the natural environment;

- promoting access to the countryside and open spaces and encouraging open-air recreation; and

- contributing, in other ways, to social and economic well-being through management of the natural environment.

20 Natural England is also a statutory consultee in respect of (amongst other things) plans and projects subject to the requirements of the various Environmental Impact Assessment Regulations in England, proposals likely to damage any of the flora, fauna or geological or physiographical features for which a Site of Special Scientific Interest ("SSSI") has been designated, and plans or projects likely to have a significant effect on any European site. European sites include Special Protection Areas ("SPAs") and Special Areas of Conservation ("SACs") (and candidate SACs ("cSACs" [1]) or sites listed under the 1971 Convention on Wetlands of International Importance ("Ramsar sites"). In addition, Natural England exercises additional duties with regards to SSSIs under the Wildlife and Countryside Act 1981 (as amended) ("the 1981 Act") and in relation to Natura 2000 sites under the Habitats Regulations.

1.5 Consultation

21 Pre-Application

22 The Applicant engaged with the consultees relevant to this Statement of Common Ground on the Project during the pre-application process, both in terms of informal non-statutory engagement and formal consultation carried out pursuant to section 42 of the Planning Act 2008. This consultation is described in the Consultation Report (Document 6.1 submitted with the application).

23 During formal consultation, all consultees covered by this Statement of Common Ground provided comments on the Preliminary Environmental Information (PEI). The Applicant addressed these comments in its Application submitted to the Planning Inspectorate on 21 November 2012 and summarised in the application documentation.

24 Post-Application

1

[1] As defined under regulation 15 and regulation 2 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007.

25 Local Authorities

26 Suffolk County Council (SCC) made a relevant representation to the Planning Inspectorate on the 7th March 2013.

27 Mid Suffolk and Babergh District Councils (MSDC) made a relevant representation to the Planning Inspectorate on the 5th March 2013.

28 Suffolk Coastal District Council (SCDC) made a relevant representation to the Planning Inspectorate on the 6th March 2013.

29 Following the acceptance of the Application and a joint meeting between the Applicant and the above local authorities on the 10th January 2013, all parties have been working to establish common ground.

30 This engagement reflects the following steering and working groups structure which has been established to facilitate progression of resolution of matters with the relevant SCC, MSDC and SCDC officers.

31 EAOL Steering group: SCC, MSDC and SCC representation meets monthly as set out below.

- Meeting 1. 10th January. Conference call. Approach to SoCG agreed.
- Meeting 2. 31st January, Suffolk County Council offices, Ipswich. SoCG discussed.
- Meeting 3. 28th February. Suffolk County Council offices, Ipswich. SoCG discussed.
- Meeting 4. 11th April. Suffolk County Council offices, Ipswich. SoCG discussed.
- Meeting 5 .14th May. Suffolk County Council offices, Ipswich. SoCG discussed.
- Meeting 6: 22nd June. SoCG discussed
- Meeting 7: 15th July. SoCG finalised

32 Natural England

33 Natural England made a relevant representation to the Planning Inspectorate on the 6th March 2013. Following a meeting between EAOL and Natural England on the 15th March, the parties have been working to establish common ground.

34 Where practical, discussions with Natural England on onshore elements of the Application have been held jointly with the local authorities on the Ecology working group (meetings of which are summarised at paragraph 49).

35 The following meetings have been held with Natural England to inform this Statement of Common Ground:

- Meeting 1. 15th March. Review of relevant representation
- Meeting 2. 3rd May. Onshore ornithology, ecology and landscape issues discussed.
- Meeting 3. 7th June. Review of Statement of Common Ground.
- Meeting 4. 13th June. Technical review of remaining issues.
- Meeting 5. 18th June. Suffolk County Council offices, Ipswich.
- Meeting 6. 24th June. Teleconference on Deben Estuary issues.
- Meeting 7: 9th July. Teleconference on SoCG.
- Meeting 8: 10th July. Teleconference on Deben Estuary issues.
- Meeting 9: 11th July. Teleconference on SoCG.
- Next meeting proposed: 19th July. Teleconference.

36 <u>Environment Agency</u>

37 The Environment Agency made a relevant representation to the Planning Inspectorate on the 6th March 2013. Following the acceptance of the Application, EAOL has been working with the Environment Agency to establish common ground.

38 Where practical, discussions with the Environment Agency have been held jointly with the local authorities on the Ground Conditions and Water Resources working group (meetings of which are summarised at paragraph 48).

39 The following meetings have been held with the Environment Agency to inform this Statement of Common Ground:

- Meeting 1. 14th February. Environment Agency offices, Ipswich.

- Meeting 2. 19th June. Suffolk County Council offices, Ipswich. Details of inland issues discussed.

- Meeting 3. 20th June. Suffolk County Council offices, Ipswich. Details of coastal issues discussed.

- Meeting 4. 3rd July. Teleconference. Details of inland and coastal issues discussed.

40 East Suffolk Internal Drainage Board

41 The East Suffolk Internal Drainage Board (East Suffolk IDB) made a relevant representation to the Planning Inspectorate on the onshore elements of the Application on the 6th March 2013. A meeting between the Applicant and the East Suffolk IDB held on the 20th June and the parties have been working to establish common ground since.

42 The following meetings have been held with the East Suffolk IDB to inform this Statement of Common Ground:

- Meeting 1. 20th June. Suffolk County Council offices, Ipswich.

- Meeting 2. 11th July. Teleconference. SoCG agreed.

43 Suffolk Wildlife Trust

44 Suffolk Wildlife Trust made a relevant representation to the Planning Inspectorate on the 7th March 2013. Following the acceptance of the Application, a meeting between the Applicant and the Suffolk Wildlife Trust was held on the 25th January and parties have been working to establish common ground since.

45 Where practical, discussions with the Suffolk Wildlife Trust on onshore elements of the Application have been held jointly with the local authorities on the Ecology working group (meetings of which are summarised at paragraph 49).

46 The following meetings have been held with Suffolk Wildlife Trust to inform this Statement of Common Ground:

- Meeting 1. 25th January. Principles of SoCG discussed.

- Meeting 2. 10th May. Teleconference.

- Meeting 3. 18th June. Suffolk County Council offices, Ipswich.

- 9th July. Teleconference. Onshore SoCG discussed.
- 11th July. Teleconference. Onshore SoCG finalised.

47 Working Groups

48 Discussion at the steering group covered all issues raised in the relevant representations from the Local Authorities, and was also informed by the following topic specific working groups.

49 Traffic and Transport Subgroup meetings:

- Meeting 1. 29th January. Conference call. Principles of SoCG discussed.
- Meeting 2. 19th February, Suffolk County Council Highways Authority offices, Ipswich.
- Meeting 3. 8th March. Suffolk County Council offices, Ipswich
- Meeting 4 .8th March. Bullen Lane, Bramford site visit.
- Meeting 4. 29th April. Bullen Lane, Bramford site visit.
- Meeting 5. 29th April. Suffolk County Council offices, Ipswich.
- Meeting 6. 18th June. Suffolk County Council offices, Ipswich.
- Meeting 7. 10th July. Teleconference.

50 Archaeology and Cultural Heritage Subgroup meetings:

- Meeting 1. 29th January, Conference Call. Principles of SoCG discussed.
- Meeting 2. 22nd February, Cambridge.
- Meeting 3.30th April. Site visit to Converter Station site to view trenching works, and to Waldringfield area to view proposed area for Onshore Cable Route.
- Meeting 4. 19th June. Suffolk County Council offices, Ipswich.
- Meeting 5. 12th July. Teleconference.

51 Landscape Subgroup meetings:

- Meeting 1. 30th January, Suffolk County Council offices, Ipswich.
- Meeting 2.28th February. Suffolk County Council offices, Ipswich.
- Meeting 3. 25th March, Converter Station Site Visit.
- Meeting 4. 10th April. Hedgerow Site Visit.
- Meeting 5. 11th April. Suffolk County Council offices, Ipswich.
- Meeting 6. 7th May. Suffolk County Council offices, Ipswich.
- Meeting 7. 18th June. Suffolk County Council offices, Ipswich.
- Meeting 8: 9th July. Teleconference.
- Meeting 9: 11th July. Teleconference.

52 Please note that after the 28th February, the Ecology and Landscape Subgroups were rolled together and joint meetings of these groups held.

53 Ecology Subgroup meetings:

- Meeting 1. 23rd January. Conference call. Principles of SoCG discussed.
- Meeting 2. 13th February. Conference call.
- Meeting 3. 25th March, Converter Station Site Visit.
- Meeting 4. 10th April. Hedgerow Site Visit.
- Meeting 5. 11th April. Suffolk County Council offices, Ipswich.
- Meeting 6. 18th June. Suffolk County Council offices, Ipswich.
- Meeting 7. 24th June. Teleconference on Deben Estuary issues.
- Meeting 8: 9th July. Teleconference.
- Meeting 9: 11th July. Teleconference.

54 Please note that after the 28th February, the Ecology and Landscape Subgroups were rolled together and joint meetings of these groups held.

55 Ground Conditions & Water Resources Subgroup meetings:

- Meeting 1. 19th June. Suffolk County Council offices, Ipswich. Details of inland issues discussed.
- Meeting 2. 20th June. Suffolk County Council offices, Ipswich. Details of coastal issues discussed.
- Meeting 3. 3rd July. Teleconference. Details of inland and coastal issues discussed.

56 Public Rights of Way Subgroup meetings:

- Meeting 1. 19th February. Suffolk County Council offices, Ipswich.
- Meeting 2. 2nd July. Teleconference.

57 Socioeconomics Subgroup meetings:

- Meeting 1. 30 January 2013. SCC offices. Sub-Group meeting to discuss relevant issues
- Meeting 2. 28 February 2013. SCC offices. SCC Director. Discussion about how to respond to socio-economic issues
- Meeting 3. 29 May 2013. SCC offices. EAOW Director/Cabinet member for Econ Development. Discussion on Skills Letter of Intent
- Meeting 4. 7 June 2013. SCC offices. Strategic planners. Discussion on broadening the Letters of Intent approach as PINS response
- Meeting 5. 2 July 2013. Sub-group meeting. Refinement of Letters of Intent (Skills, Ports, Supply Chain and Strategic Relationships)

2 Principles of Development

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency	East Suffolk Internal Drainage Boards	Suffolk Wildlife Trust	EAOL Position
Matters Agreed							
2.1	There is no objection to the landfall location	Agreed	Agreed	Agreed	No objection	Agreed	Agreed
2.2	There is no objection to the route of the onshore cable route	Agreed	Agreed, subject to implementation of mitigation	Agreed	No objection	Agreed	Agreed
2.3	The onshore cable routing adjacent to Little and Great Bealings has been consulted upon and there is no objection to the final route including working width (with reference to Figure 6.1 of the PSR1&SEI)	Agreed	Not applicable	Agreed	No comment	Agreed	Agreed
2.4	The principle of installing ducts for future phases of development in the East Anglia Zone is agreed and supported.	Agreed	Not applicable, however, NE supports proposals that strategically reduce environmental impact	Agreed	Agreed	Agreed	Agreed

2.5	The location of major HDDs below is agreed and a working width of 160m at the locations is agreed and there is no objection to the principle that no alternatives to HDDs at these locations should be assessed. Major HDDs: Landfall River Deben Kirton Martlesham A12 A14/Railway/River Gipping Millers Wood It is agreed that trenchless techniques will be used for Sandy Lane and there is no objection to the use of trenchless techniques under Lodge Road.	Agreed	Agreed, subject to implementation of mitigation	No comment	Agreed	Agreed	Agreed
2.6	The principles that have	Agreed	NE agree that the	No comment	Agreed	Agreed	Agreed

	been used to inform the choice and location of the onshore infrastructure for the project (as described in ES Volume 1, Chapter 3) are agreed. Key principles include: - avoidance of built up areas and routeing away from residences -avoidance of designated sites - minimisation of impacts on hedgerows and mature trees - - use of HDD to reduce permanent landscape impacts in some cases - routeing away from archaeologically sensitive areas The principle of locating the onshore element of the export cables underground is agreed. It is agreed that undergrounding the export cables is important	Agreed	principles listed are appropriate		Agreed	Agreed	Agreed

	mitigation in regard to minimising potentially adverse landscape and visual impacts particularly in regard to the Area of Outstanding Natural Beauty (AONB) and the Special Landscape Area (SLA)						
2.7	There is no objection to the site selection exercise (as set out in ES Volume 1, Chapter 3) for the EAOL converter station.	Agreed	Not applicable	No comment	No comment	Not applicable	Agreed
2.8	There is no objection to converter station location, in particular the choice of the location being as near as possible to the existing Bramford electricity substation, and position to take advantage of the screening offered by adjacent woodland.	Agreed	Agreed, subject to implementation of mitigation	Agreed	Agreed	Agreed	Agreed
2.9	The Rochdale Envelope (principles of which are set out in NPS EN-1 and EN-3) for the converter station is agreed as a suitable basis for assessment and consent.	Agreed	Agreed	Agreed	Agreed	Agreed	Agreed

2.10	The temporary works porposed for the development are agreed and in particular there is no objection to the principles of site selection and the proposed locations for the Construction Consolidation Sites (CCSs): Secondary CCS A – Bramford Primary CCS B – Paper Mill Lane Secondary CCS C – B1077 Witnesham Road Secondary CCS D – Playford Primary CCS E – Top Street Secondary CCS F – North of Newbourne Secondary CCS G – Park Lane Secondary CCS H –Deben Estuary Secondry CCS I – Bawdsey	Agreed	NE agree that the principles are appropriate	Agreed	No comment	Not applicable	Agreed

2.11	There is no objection to the 75m Rochdale Envelope (principles of which are set out NPS EN-1 and EN-3) for the cable route corridor and its construction as a suitable basis for assessment and consent, and specifically there is no objection to the 20m deviation on the maximum 55m working width.	Agreed	Agreed	No comment	Agreed	Agreed in relation to ecology	Agreed
2.12	The parties agree the 35m working width as a maximum working width through all hedgerows with the exception of those identified in Appendix 2 'Schedule of Hedgerows' of the Landscape and Ecological Management Strategy where additional mitigation is proposed	Agreed	Agreed				
2.13	The provisions of the draft DCO (Version dated 12th July 2013), as they relate to the relevant parties' interests, are agreed. The parties agree that the provisions of the DCO	Agreed	Agreed in relation to provisions made for landscape and ecology	Agreed	Agreed	Agreed in relation to ecology	Agreed

	(Version dated 12th July 2013) and the documents specified therein will adequately control impacts of the projects						
2.14	The work description in the draft DCO (Version dated 12th July 2013) and work plans adequately describe and control the project	Agreed	Not applicable	Agreed	Agreed	Agreed	Agreed
2.15	It ia agreed that the order limits, as set out in the draft DCO (Version dated 12th July 2013) provide a complete and accruate description of the project area	Agreed	Not applicable	No comment	Agreed	Not applicable	Agreed
2.16	The Rochdale Envelope (principles of which are set out in NPS EN-1 and EN-3) for the landfall construction is agreed as a suitable basis for assessment and consent	Agreed	Agreed	Agreed	No comment	Not applicable	Agreed
2.17	It is agreed that the wider order limits at Great Blakenham Greenhouses (Work No. 36), Martlesham Greenhouse (Work No. 21) and Low Farm Campsite,	Agreed	Not applicable	No comment	No comment	Not applicable	Agreed

	Waldringfield (Work No. 15) are appropriate to seek to minimise socio economic impacts						
2.18	The parties agree there are no other areas of uncommon ground in relation to Principles of Development	Agreed	Agreed	Agreed	Agreed	Agreed	Agreed

3 Approach to Assessment and Policy Background

3.1 Introduction

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency	East Suffolk Internal Drainage Boards	Suffolk Wildlife Trust	EAOL Position
Matters Agreed							
3.1	It is agreed that NPS for Renewable Energy (EN-3), when read in combination with other relevant NPSs, is the overriding policy document in relation to impact of the project. It is agreed that the ES has	No comment	Not applicable	No comment	Agreed	Agreed in relation to ecology Agreed in relation to	Agreed

	considered and referred to all other relevant guidance documents and appropriate national and international legislation in relation to the potential impacts of the project in preparing the impact assessments	No comment			Agreed	ecology	
3.2	It is agreed that EAOL have assessed development plan policies and the project is broadly in accordance.	Agreed	Not applicable	No comment	Agreed	No comment	Agreed
3.3	The parties agree there are no other areas of uncommon ground in relation to Assessment Approach and Policy Background in relation to the Project Application.	Agreed	Not applicable	Agreed	Agreed	Agreed in relation to ecology	Agreed

4 Biodiversity, Biological Environment and Ecology

4.1 Chapter 24 - Ecology & Ornithology

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC	Natural England	Environment Agency	East Suffolk IDB	Suffolk Wildlife Trust	EAOL

Matters Agreed							
Data Collection and Description of the Baseline Environment							
4.1	The Environmental Statement adequately characterises the baseline relevant to intertidal and onshore ornithology, other than Brent Geese at the Deben Estuary	Agreed	Agreed		Agreed	Agreed	Agreed
4.2	The Environmental Statement adequately characterises the baseline relevant to onshore ecology	Agreed	Agreed		Agreed	Agreed	Agreed
Impact Assessment Methodology							
4.3	The impact assessment methodology as set out in each assessment chapter provides an appropriate	Agreed	Agreed		Agreed	Agreed	Agreed

	approach to assessing potential impacts of the proposed East Anglia ONE project on intertidal and onshore ornithology						
4.4	The impact methodology as set out in each assessment chapter provides an appropriate approach to assessing potential impacts of the proposed East Anglia ONE project on onshore ecology (other than ornithology)	Agreed	Agreed		Agreed	Agreed	Agreed
Environmental Impact Assessment and Mitigation							
4.5	Assuming agreed mitigation is implemented, the proposed development is not considered to	Agreed	Agreed		Agreed	Agreed	Agreed

	have a detrimental effect on non designated countryside.						
4.6	Assuming agreed mitigation is implemented, the proposed development is not considered likely to damage the ecological and geological features of interest of relevant SSSIs or other protected sites, eg County Wildlife Sites. The parties are agreed that adequate mitigation can be secured for bats at the converter through the implementation of the proposals agreed through	Agreed.	Agreed		Agreed	Agreed	Agreed

	the Landscape and Ecological Management Strategy.						
4.7	Assuming agreed mitigation is implemented, the proposed development is not considered to have a detrimental effect on onshore European Protected Species. The parties are agreed that adequate mitigation can be secured for bats at the converter through the implementation of the proposals agreed through the Landscape and Ecological Management	Agreed	Agreed		Agreed No comment	Agreed	Agreed

	Strategy. Where mitigation requires the granting of a Natural England licence, the measures proposed are considered to be in line with Natural England guidance.						
4.8	The proposed development is not considered to have a detrimental effect on Schedule I breeding species, providing the implementation of the mitigation agreed within the Ecological Mitigation Plan for the Deben SPA non-breeding birds and Schedule 1 breeding birds and outlined within the Environmental	Agreed subject to Natural England agreement.	Agreed		Agreed	Agreed	Agreed subject to particular discussion regarding the Deben Estuary.

	Statement.						
Cumulative Assessment							
4.9	Sufficient information has been provided to conclude that the project has no significant cumulative impact when considered together with other onshore and intertidal projects, other than Brent Geese.	Agreed	Agreed		No comment	Agreed	Agreed
DCO							
4.10	Given the impacts of the project, the conditions within the DCO (Version dated 12th July 2013) are considered appropriate and adequate.	Agreed	Agreed		Agreed	Agreed	Agreed
4.11	The draft Landscape and Ecological	Agreed	Agreed		Agreed	Agreed	Agreed

	Management Strategy is sufficiently detailed at this stage to inform a consenting decision, other than in relation to Brent Geese.						
4.12	The parties agree there is no other uncommon ground in relation to Ecology and Ornithology in relation to the Project Application, other than as set out below.	Agreed	Agreed		Agreed	Agreed	Agreed
Matters not agreed							
4.13	The Environmental Statement adequately characterises the baseline relevant to Brent Geese at Deben Estuary	Agreed subject to Natural England agreement.	The ES does not currently do this in a very clear manner. It is agreed that further information will be provided within the Ecological		No comment	Not agreed. Subject to further discussion.	Not agreed

			Mitigation Plan for the Deben SPA non-breeding birds and Schedule 1 breeding birds, including one updated map showing the total usage of the Deben Estuary by brent geese.				
4.14	Sufficient information has been provided to conclude that the project alone has no Likely Significant Effects on the Deben Estuary SPA	Agreed subject to Natural England agreement.	NE would expect that a project of this scale and location would have triggered an LSE test. However, the residual effect, ie post-mitigation, of this development is not predicted to result in an impact on Deben Estuary SPA birds alone. Sufficient information has now been presented such		No comment	Agreed subject to Natural England agreement	Agreed subject to Natural England agreement

			that, should it have been provided in the form of an HRA, it is likely that the conclusion reached would have been no adverse effect on site integrity.				
4.15	Sufficient information has been provided to conclude that the project has no significant in-combination impact on the Deben Estuary SPA when considered together with other onshore and intertidal projects	Agreed subject to Natural England agreement.	NE would expect that a project of this scale and location would have triggered an LSE test. However, the residual effect, ie post-mitigation, of this development is not predicted to result in an impact on Deben Estuary SPA birds in-combination. Sufficient information has now been presented such that, should it have		No comment	Agreed subject to Natural England agreement.	Not agreed

			been provided in the form of an HRA, it is likely that the conclusion reached would have been no adverse effect on site integrity.				

5 Noise, Vibration, Electromagnetic field and health impacts

5.1 Ch 26 - Noise & Vibration

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC (relevant local planning authorities and relevant highway authorities)	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL Position
Matters Agreed							
Environmental Assessment							

5.1.1	The parties agree with the results of the assessment (as presented within ES Volume 3, Chapter 26 and Post-Submission Report 1 and Supplementary Environmental Information) of impacts on Noise & Vibration on East Anglia ONE.	SCDC, MSDC - Agreed SCC – Agreed in relation to impacts associated with traffic and transport. No comment in relation to other areas.					Agreed
Development Consent Order							
5.1.2	The parties agree that adherence to the requirements regarding operational and construction noise within the DCO (Version dated 12th July 2013) and the documents specified therein will would avoid significant Noise & Vibration impacts from East Anglia ONE	SCDC, MSDC - Agreed SCC – Agreed in relation to impacts associated with traffic and transport. No comment in relation to other areas.					Agreed
5.1.3	It is agreed that there are no other outstanding matters that have not been agreed with respect to Noise and Vibration in relation to the Project Application.	Agreed					

5.2 Ch 23 - Electro-magnetic Field and Health Impacts

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position (relevant local planning authorities and relevant highway authorities)	Natural England position	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL
Matters Agreed							
Environmental Assessment							

5.2.1	The parties agree with the results of the assessment of impacts in relation to electro-magnetic field impacts from East Anglia ONE, as outlined in ES Volume 3, Chapter 23.	**No comment**					See Correspondence between EAOL and Public Health England
Development Consent Order							
5.2.2	The parties agree that adherence to the requirements within the DCO (Version dated 12th July 2013), and the commitments to be contained within the Outline Code of Construction Practice, would ensure the avoidance of health related impacts from land contamination.	SCDC, MSDC – Agreed SCC – No comment					Agreed
5.2.3	The parties agree that compliance with relevant national health and safety legislation and guidance would ensure the health and safety of construction and operational personnel onshore is appropriately managed.	SCDC, MSDC – Agreed SCC – No comment					
5.2.4	It is agreed that there are no other outstanding matters that have not been agreed with respect to health impacts in relation to the Project	SCDC, MSDC – Agreed SCC – No comment					

	Application.						
5.2.5	It is agreed that there are no other outstanding matters that have not been agreed with respect to electro-magnetic field	SCDC, MSDC - no comment					

6 Onshore Heritage and the Built Environment

6.1 Ch 25 – Archaeology and Cultural Heritage; Cliff Stability and Soil Shrinkage

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL
Matters Agreed							
Converter Station Compound							
Data Collection and Description of Baseline Environment							
6.1	It has been agreed that the desk based baseline for the archaeological and cultural heritage assessment for the East Anglia ONE converter station compound has been	Agreed					Agreed

	appropriately established within the Environmental Statement.						
Environmental Impact Assessment and Mitigation							
6.2	It has been agreed that the desk-based assessment of impacts on archaeology and cultural heritage (taking into account identification of embedded mitigation) for the East Anglia ONE converter station compound has been sufficient and adequate for the purposes of the application and Environmental Statement.	Agreed					Agreed
6.3	It has been agreed that the desk-based assessment of residual impacts on archaeology and cultural heritage, including identification of additional mitigation, for the East Anglia ONE converter station compound, has been sufficient and adequate for the purposes of the application and Environmental Statement. The parties agree on the results of this assessment.	Agreed					Agreed
6.4	Field work at the converter station compound was carried	Agreed					Agreed

	out between February and May 2013 in accordance with the WSI submitted with the application and agreed by the parties before commencement of works. It has been agreed that no significant impacts on archaeology or cultural heritage would arise from the construction of Work No. 39.						
Onshore Cable Route							
Data Collection and Description of Baseline Environment							
6.5	It has been agreed that the desk-based assessment undertaken to inform the EIA is adequate for the purposes of consenting	Agreed					Agreed
6.6	It is agreed that the potential for early medieval settlement in the vicinity of the Onshore Cable Route is high, notwithstanding this the parties agree conclusions of the assessment.	Agreed					Agreed
Environmental Impact Assessment and Mitigation							
6.7	It has been agreed that the assessment of impacts on archaeology and cultural heritage, including identification of embedded mitigation, for the Onshore Cable Route has been	Agreed					Agreed

	sufficient and adequate for the purposes of the application and Environmental Statement						
6.8	It has been agreed that the assessment of residual impacts on archaeology and cultural heritage, including identification of additional mitigation, for the Onshore Cable Route has been sufficient and adequate for the purposes of the application and Environmental Statement. The parties agree on the results of this assessment.	Agreed					Agreed
6.9	The parties agree that the onshore cable route will not cause any any significant impacts to the setting of any designated heritage asset	Agreed					Agreed
6.10	It has been agreed that the Outline Written Scheme of Investigation: Archaeology and Cultural Heritage (Onshore) is sufficient for the purposes of consent.	Agreed					Agreed
6.11	It is agreed that physical impacts on building stability, in particular on listed buildings including Bawdsey Manor Estate (including the pullomite cliff), are not	Agreed					Agreed

	significant.						
Development Consent Order							
6.12	The parties agree that the DCO (Version dated 12th July 2013), and the commitments contained within the Outline Written Scheme of Investigation: Archaeology and Cultural Heritage (Onshore) and processes laid out within it, would ensure the avoidance of significant impacts on archaeology and cultural heritage.	Agreed					Agreed
6.13	The parties agree there is no other uncommon ground in relation to Archaeology and Cultural Heritage in relation to the Project Application.	Agreed					Agreed

7 Landscape, Seascape, Visual Impacts and Design

7.1 Ch 29 – Landscape, Seascape and Visual Impacts

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL
Matters Agreed							
Data Collection and Description of Baseline Environment							
7.1	The parties agree that the Environmental Statement adequately characterises the baseline relevant to Landscape, Seascape and Visual Impact assessment	Agreed	Agreed			Not applicable	Agreed
Impact Assessment Methodology							
7.2	The impact assessment methodologies applied provide an appropriate approach to assessing the potential impacts of the project relevant to Landscape,	Agreed	Agreed			Not applicable	Agreed

	Seascape and Visual Impact Assessment						
Environmental Impact Assessment and Mitigation							
7.3	The parties agree the results of the assessment of residual Landscape, Seascape and Visual Impacts in the Environmental Statement.	Agreed	Agreed			Not applicable	Agreed
7.4	In particular the parties agree that the impacts of the scheme on the AONB, SLA and protected and veteran trees and hedgerows are adequately assessed.	Agreed	Agreed			Not applicable	Agreed
7.5	It has been agreed that the additional mitigation identified within the Environmental Statement is adequate and sufficient, subject to successful provision of its delivery through the relevant DCO conditions (Version dated 12th July 2013).	Agreed	Agreed			Not applicable	Agreed
Development Consent Order							
7.6	It is agreed that the Rochdale envelope	Agreed	Agreed			Not applicable	Agreed

	assessed for the converter station is appropriate						
7.7	It has been agreed that the requirements and conditions within the DCO (Version dated 12th July 2013) are sufficient to ensure the avoidance of unacceptable significant Landscape, Seascape and Visual Impacts and that the principles of good design are adhered to as set out within the NPS	Agreed pending update of the DCO.	Agreed			Agreed	Agreed
7.8	It is agreed that the Important Hedgerow Schedule submitted with the application should be replaced with the revised Schedule presented in the DCO (July 2013).	Agreed	Agreed			Agreed	Agreed
7.9	The parties agree the contents of the Outline Landscape and Ecological Management Strategy, and the principles of the Draft Section 111/106 Agreement and Outline Converter	Agreed	Agreed			Agreed	Agreed

	Station Design Principles paper. The parties agree that these represent vehicles by which sufficient mitigation, compensation, and enhancement for the Landscape, Seascape and Visual Impact related impacts of the project would be delivered.						
7.10	The parties agree there is no other uncommon ground in relation to Landscape, Seascape and Visual Impacts in relation to the Project Application	Agreed	Agreed			Agreed	Agreed
7.11	The LA are satisfied that sufficient information has been provided for the purposes of consent in regard to the discharge of requirement 18 – final converter station design, within the Outline Converter Station Design Principles paper.	SCC - Agreed SCDC – No comment. MSDC – Agreed	Agreed			Agreed	Agreed

8 Highways and Traffic

8.1 Ch 27 – Traffic and Transport

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position (relevant local planning authorities and relevant highways authorities)	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL position
Matters agreed							
Environmental Statement							
8.1.1	While the parties do not necessarily agree on all the assumptions made	Agreed					Agreed

	and outputs from the assessment of Traffic & Transport impacts of EA ONE (including traffic related noise and vibration impacts) the parties agree that the assessment is adequate to reach agreement for controlling and limiting vehicle movements on the local highway network and therefore adequate for the purposes of consent						
Development Consent Order							
8.1.2	It is agreed that the Outline Traffic Management Plan provided is adequate for the purposes of consent.	Agreed					Agreed
8.1.3	It is agreed that the Outline Access Management Scheme provided is adequate for the purposes of consent.	Agreed					Agreed

8.1.4	It is agreed that the Outline Travel Plan provided is adequate for the purposes of consent.	Agreed					Agreed
8.1.5	It is agreed that the EA ONE application does not provide for development consent at any port, notwithstanding this the parties agree that EAOL will work with the relevant Local Authorities to develop a port related Travel Plan once the chosen port(s) are identified.	Agreed					Agreed
8.1.6	The parties agree that adherence to the requirements within the DCO (Version dated 12th July 2013), and the commitments contained within Outline Code of Construction Practice, Outline Traffic	Agreed					Agreed

	Management Plan, Outline Access Management Scheme and Outline Travel Plan, would ensure the avoidance of significant impacts from traffic and transport in relation to noise, vibration and air quality.						
8.1.7	The parties agree that EAOL will work together with the relevant Highways Authority to achieve s278 agreements at the locations specified within Table 1 of the Outline Traffic Management Plan.	Agreed					Agreed
8.1.8	It is agreed that there are no other outstanding matters that have not been agreed between the parties with respect to Traffic and Transport in relation to the Project Application and the local highway network.	Agreed					Agreed

8.2 Air Quality

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL Position
Matters Agreed							
Environmental Assessment							
8.2.1	The parties agree with the results of the assessment of impacts on Air Quality on East Anglia ONE.	SCDC, MSDC – Agreed SCC – Agreed only in relation to traffic and transport impacts, as other areas not within SCC remit.					Agreed
Development Consent Order							
8.2.2	It has been agreed that requirement 27 of the Development Consent Order gives the District Councils sufficient control over design to avoid significant impacts on Air Quality from East Anglia ONE	SCDC, MSDC – Agreed SCC – Agreed only in relation to traffic and transport impacts, as other areas not within SCC remit. Agreed					Agreed

8.2.3	It is agreed that there are no other outstanding matters that have not been agreed with respect to Air Quality in relation to the Project Application	Agreed					Agreed

8.3 Public Rights of Way

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL Position
Matters Agreed							
Environmental Assessment							
8.3.1	It has been agreed that the assessment of impacts upon Public Rights of Way has been sufficient and adequate for the purposes of the application and Environmental Statement. The parties agree with the results of this assessment.	Agreed					Agreed
Development Consent Order							
8.3.2	The parties agree with the provisions of the	Agreed					Agreed

	DCO (Version dated 12th July 2013) in regard to temporary stopping up of public rights of way.						
8.3.4	The parties agree the provisions of the Outline Code of Construction Practice in relation to Public Rights of Way. The detail in the Outline Code of Construction Practice in relation to Public Rights of Way is sufficient to inform a consenting decision.	Agreed					Agreed
8.3.5	It is agreed that Schedule C Parts 1 & 2 submitted with the application should be replaced with the revised Schedules within the draft DCO (July 2013).	Agreed					Agreed
8.3.6	It is agreed that there are no other outstanding matters that have not been agreed with respect to Public Rights of Way in relation to the Project Application	Agreed					Agreed

9 Drainage and Water Supply

9.1 Ch 20 - Ground Conditions & Contamination & Chapters 6 and 9 (in relation to Coastal Erosion)

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency Position	East Suffolk Internal Drainage Board (relevant drainage board)	Suffolk Wildlife Trust	EAOL
Matters Agreed							
9.1.1	The parties agree with the results of the assessment of impacts on Ground Conditions and Contamination on East Anglia ONE.	Agreed. Suffolk County Council do not have a view on this issue.		Agreed	Agreed		Agreed
Development Consent Order							
9.1.2	It has been agreed that adherence to the requirements within the Development Consent and the documents specified therein will will ensure the avoidance of significant impacts on Ground Conditions and Contamination from East Anglia ONE	Agreed. Suffolk County Council do not have a view on this issue.		Agreed	Agreed		Agreed
9.1.3	The parties agree that Condition 9(i) of Part 2 of the Deemed Transmission Marine Licence and Requirement 18A of Part 3 of Schedule A in the Development Consent Order facilitate appropriate monitoring and mitigation in relation to cliff stability and coastal processes	Agreed		Agreed	IDB does not have a view on this issue.		Agreed

9.1.4	It is agreed that there are no other outstanding matters that have not been agreed with respect to Ground Conditions and Contamination in relation to the Project Application	Agreed		Agreed	Agreed		Agreed

9.2 Ch 22 - Water Resources & Flood Risk

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency Position	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	East Anglia ONE Ltd
Matters Agreed							
Environmental Assessment							
9.2.1	The parties agree with the results of the assessment of impacts on Water Resources and Flood Risk on East Anglia ONE.	Agreed		Agreed	Agreed		Agreed

Development Consent Order							
9.2.2	It has been agreed that adherence with the requirements within the Development Consent Order and Outline Code of Construction Practice will ensure the avoidance of significant impacts on Water Resources & Flood Risk from East Anglia ONE and satisfy the requirements of Water Framework Directive.	Agreed		Agreed	Agreed		Agreed
9.2.3	It is agreed that there are no other outstanding matters that have not been agreed with respect to Water Resources & Flood Risk in relation to the Project Application	Agreed		Agreed	Agreed		Agreed

10 Socio Economics

10.1 Ch 28 – Socio Economics

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency	East Suffolk Internal Drainage Board	Suffolk Wildlife Trust	EAOL position
Matters Agreed							
10.1	The parties agree that in the absence of confirmation around port usage, the assessment of	Agreed					Agreed

	socioeconomics is adequate. The parties agree the results of this assessment.						
10.2	It is agreed that the principle socioeconomic matters in relation to mitigation were: Cumulative impacts with Sizewell Skills Supply Chain Ports Tourist accommodation	Agreed					Agreed
10.3	The parties agree that on the basis of the timings associated with EA ONE, there is no potential for cumulative impact of construction employment with the Sizewell development.	Agreed					Agreed
10.4	The parties agree that the information presented in the Tourism Accommodation Study adequately addresses the potential impacts of EA ONE in relation to tourism accommodation. The parties agree the results of this Study.	Agreed					Agreed
10.5	In the absence of confirmation around port usage the information set out in the Letters of Intent (Skills,	Agreed					Agreed

	Supply Chain and Ports) is adequate to meet the requirements of the NPS EN-1, Section 5.12.						
10.6	EAOL have worked with the promoters of greenhouse development at Great Blakenham (SITA/Sterling Suffolk) to develop a SoCG	Agreed					SITA/Sterling Suffolk and EAOL have developed an engineering solution that will allow the two projects to co-exist. This solution is captured in the Sita SoCG
10.7	It is agreed that there are no other outstanding matters that have not been agreed with respect to Socioeconomics in relation to the Project Application	Agreed					Agreed

11 Development Consent Order

ID	Issue on which EAOL seek agreement	SCC, MSDC and SCDC Position	Natural England	Environment Agency	East Suffolk Internal Drainage Boards	Suffolk Wildlife Trust	EAOL Position
Matters Agreed							
11.1	The Works Description adequately describes the infrastructure proposed	**Agreed**	Not applicable	No comment	No objection	Agreed	Agreed
11.2	The draft DCO (Version dated 12th July 2013) and the documents specified therein are agreed in principle	**Agreed**	Agreed in relation to landscape and ecology	Agreed	No objection	Agreed in relation to ecology	Agreed
11.3	The parties agree in principle that there is no other uncommon ground in relation to the draft DCO (Version dated 12th July 2013) and documents specified therein.	**Agreed**	Agreed	Agreed	No comment	Agreed	Agreed

12 Signing Sheets

1 The following pages constitute signed agreements relating to the previous sections.

12.2 Suffolk County Council

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (4) Biodiversity, Biological Environment and Ecology Section (5) Noise, Vibration, Electromagnetic field and health impacts Section (6) Onshore Heritage and the Built Environment Section (7) Landscape, Seascape, Visual Impacts and Design Section (8) Highways and Traffic Section (9) Drainage and Water Supply Section (10) Socio Economics Section (11) Development Consent Order
Signed	
Name	
Position	
For	**Suffolk County Council**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

12.3 Mid Suffolk District Council

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (4) Biodiversity, Biological Environment and Ecology Section (5) Noise, Vibration, Electromagnetic field and health impacts Section (6) Onshore Heritage and the Built Environment Section (7) Landscape, Seascape, Visual Impacts and Design Section (8) Highways and Traffic Section (9) Drainage and Water Supply Section (10) Socio Economics Section (11) Development Consent Order
Signed	
Name	
Position	
For	**Mid Suffolk District Council**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

12.4 Suffolk Coastal District Council

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (4) Biodiversity, Biological Environment and Ecology Section (5) Noise, Vibration, Electromagnetic field and health impacts Section (6) Onshore Heritage and the Built Environment Section (7) Landscape, Seascape, Visual Impacts and Design Section (8) Highways and Traffic Section (9) Drainage and Water Supply Section (10) Socio Economics Section (11) Development Consent Order
Signed	
Name	
Position	
For	**Suffolk Coastal District Council**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

12.5 Natural England

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (4) Biodiversity, Biological Environment and Ecology Section (7) Landscape, Seascape, Visual Impacts and Design Section (11) Development Consent Order
Signed	
Name	
Position	
For	**Natural England**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

12.6 Environment Agency

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (9) Drainage and Water Supply Section (11) Development Consent Order
Signed	
Name	
Position	
For	**The Environment Agency**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

12.7 East Suffolk Internal Drainage Board

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (9) Drainage and Water Supply Section (11) Development Consent Order
Signed	
Name	
Position	
For	**East Suffolk Internal Drainage Board**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

12.8 Suffolk Wildlife Trust

Matrices to which Agreement Relates	Section (2) Principles of Development Section (3) Approach to Assessment and Policy Background Section (4) Biodiversity, Biological Environment and Ecology Section (7) Landscape, Seascape, Visual Impacts and Design Section (11) Development Consent Order
Signed	
Name	
Position	
For	**Suffolk Wildlife Trust**
Date	
Signed	
Name	
Position	
For	**East Anglia ONE Limited**
Date	

4

23.3 D Evidence Plan Agreement Log

Table 2 – areas of agreement

ID	Issue on which EAOW THREE and FOUR seek agreement on	NE Position	SCC Position
1	Data collected by EAOW for characterisation of the onshore ecology are suitable for EA3 and EA4 EIA (see ETG background paper Appendix 1)		Agreed – but where possible this data should be supplemented by any pre-construction surveys being undertaken for EA ONE
2	Confirmation required that surveys conducted in 2012 to be used in EA 4 assessments at still valid for submission of DCO in 2015		Agreed – but as per EA ONE, the DCO will need to secure further pre-construction surveys
3	Proposed methodology for assessment is agreed (ETG background paper section 4.2)		Agreed
4	Proposed terminology for assessment is agreed (ETG background paper section 4.2)		Agreed
5	List of potential impacts to be considered in the EIA to be agreed		Agreed
6	Impact assessment will consider embedded mitigation as the starting point and EA1 mitigation is the basis EA3 and EA4		Agreed – this should refer to EA ONE mitigation *as informed by the EA ONE pre-construction surveys*
7	Conclusions with regard to HRA and EPS (for non-ornithological features) to be agreed		Suggest that ETG background paper section 4.5 should separate out HRA issues from EPS issues as they are not directly related. Agree that there are not likely to be any non-ornithological onshore LSE in the HRA context Agree that there is not likely to be any adverse effects on EPS, provided that pre-construction surveys are secured and are able to inform appropriate mitigation (as secured through the Landscape & Ecological Management Plan for EA ONE).
8			
9			

Appendix 23.3 ends here