

East Anglia THREE  
Offshore Windfarm

East Anglia THREE

# Second Written Questions (Applicant's Response)

Document Reference – Deadline 5/ Second  
Written Questions/ Applicant's Response

PN	<b>Principle and nature of the development</b>	
PN9	Applicant	The East Anglia ONE (EA ONE) project considered the use of either High Voltage Direct Current (HVDC) or High Voltage Alternating Current (HVAC) electrical solutions, the latter having now been chosen and the effect of which is to lessen the height and amend the design of its substation elements at Bramford. The EA THREE project is considering the alternative electrical solutions of HVDC and Low Frequency Alternating Current (LFAC). Please explain the differences between HVAC and LFAC and why the latter is being considered as an option for EA THREE rather than HVAC.
PN9	Applicant's response	<p>One of the export solutions deemed appropriate for the East Anglia THREE project is a Low Frequency High Voltage Alternating Current (LF HVAC, or "LFAC") connection. The reason LFAC is preferred over the HVAC solution chosen for East Anglia ONE relates directly to the distance that the energy produced has to travel from the wind farm to the land. The National Grid system in the UK is designed to hold AC at a "normal" frequency of 50 Hz, and as a result most of the offshore wind farms located close to the coast are designed accordingly. However, when it comes to very long transmitting distances (cables longer than approximately 100 km) as is the case for East Anglia THREE (up to 166km), the amount of electrical losses along such a length of cable renders the HVAC export solution very inefficient. The export cables for East Anglia ONE will be around 73km in length.</p> <p>Furthermore, HVAC technology used over longer distances (greater than 100km) requires additional onshore infrastructure such as reactive compensation equipment, the footprint for such infrastructure can be extensive and is therefore not desirable for East Anglia THREE.</p> <p>Therefore, developers are currently investigating the possibility of transmitting power with Alternating Current but at lower-than-normal frequencies, such as 16.7 Hz or one third of normal grid frequency. At this frequency, the amount of charging currents and subsequent electrical losses would be much lower and therefore the system would be more efficient.</p>
ECO	<b>Ecology offshore - ornithology</b>	
ECO12	Royal Society for the Protection of Birds (RSPB)	In response to the ExA's First Written Questions (FWQ) [REP3-002, question EC03 – impacts of the project alone] a paper by Green et al, <i>Lack of sound science in assessing wind farm impacts on seabirds</i> is referenced. Please could the RSPB supply to the ExA a copy of this paper?

ECO12	Applicant's response	Not applicable to the Applicant
ECO13	RSPB	In its comments on responses to the ExA's FWQ [REP3-002], the RSPB notes that the approach of using any Biologically Defined Minimum Population Scales population for Population Viability Analysis (PVA) is novel, and requires greater explanation and consideration. Is the RSPB now satisfied that the Applicant has provided sufficient explanation and, if not, what further information does RSPB require?
ECO13	Applicant's response	The Applicant has discussed selection of appropriate reference populations with Natural England. The Applicant's position remains that the BDMPS represents an appropriate and precautionary population scale to use for the current assessment, and further evidence in support of this was provided in Annex 1 of Appendix 2 of the SoCG with Natural England (Document Reference: Deadline 2 / SoCG / NE and Applicant) and also in a clarification note (Document Reference: Deadline 4/ Updated CRM & GBBG). Natural England consider there may be alternative reference populations which could also be used for modelling and assessment but have accepted the Applicant's position and have also stated that they do not require further work to be conducted.
ECO14	RSPB	In its comments on responses to the ExA's FWQ [REP3-002], RSPB recommended changes to the Collision Risk Model (CRM) assessment approach for gannet, to which the Applicant responded [REP3-005]. Does RSPB have any outstanding concerns?
ECO14	Applicant's response	Not applicable to the Applicant
ECO15	RSPB	The Applicant has submitted a PVA for great black-backed gull [REP3-005]. Does this address the RSPB's concerns?
ECO15	Applicant's response	Not applicable to the Applicant
ECO16	RSPB	Natural England takes the view that although a significant cumulative effect on the kittiwake population is likely, the contribution from the project is so small as to not alter the significance of the overall

		cumulative mortality figure. Does the RSPB agree with this position? If not, please explain.
ECO16	Applicant's response	Not applicable to the Applicant
ECO17	Applicant	The Applicant's collision risk update [REP4-011] is calculated on the basis of EA ONE being reduced to 102 turbines. The ExA notes that the non-material change consented by the Secretary of State decision reduces the consented EA ONE turbine number to 150. The Applicant is requested to provide an updated CRM which is calculated on the basis that EA ONE includes 150 turbines.
ECO17	Applicant's response	<p>In a letter dated 16<sup>th</sup> September 2016, East Anglia ONE Ltd (EAOL) wrote to the Secretary of State to confirm the following regarding the East Anglia ONE project:</p> <p><i>"We shall be grateful if you will treat this letter as notice for the purposes of Requirement 35 (1) and (2) of the Order that EAOL has selected to construct the HVAC offshore wind farm using the HVAC option and that the HVAC collector stations will be constructed under Work No.2."</i></p> <p><i>"We can also advise that the HVAC offshore wind farm will comprise of one hundred and two, seven megawatt turbines."</i></p> <p>A copy of the letter is included with the Applicant's response to Deadline V (Deadline 5/EAOL Letter to Secretary of State). It is the Applicant's understanding that once such a notification is made the right to revert to a 1200MW HVDC project falls away.</p> <p>Construction of East Anglia ONE is due to begin in early 2017 and EAOL is currently contracting on the basis of 102 X 7MW turbines. This takes the capacity of the windfarm to 714MW in line with the Contract for Difference awarded to the project. The recent East Anglia ONE Order (as amended) provides for a HVAC generating station of up to 150 turbines at 750MW capacity. As notified to BEIS and as reflected in the contracting strategy, EAOL will not construct a windfarm of greater than 102 X 7MW in capacity.</p> <p>Nevertheless, as requested, the Applicant has provided updated CRM numbers at Deadline 5 (Document reference: Deadline 5/ Revised CRM/ the Applicant) which demonstrate the reduction in the East</p>

		<p>Anglia ONE turbine numbers as a result of a reduction in turbines from 240 to 150 which shows significant reduction in collision risk.</p> <p>In Natural England's note responding to the updated CRM and submitted at Deadline V, the Applicant notes that Natural England state:</p> <p><i>"Natural England also acknowledge that (subject to the reductions in the EA1 design being legally binding), the updated cumulative totals including EA3 are lower than the most recently consented totals for Hornsea Project 2."</i></p> <p>RSPB also comment in their response to Deadline V as follows:</p> <p><i>"The RSPB's concerns regarding significance of cumulative and in-combination impacts on gannet, kittiwake and great black-backed gull have been reduced as a result of a commitment from the Applicant to raise the height of the turbines by 2m over 70% of the East Anglia THREE site (see our recalculations of potential collision risk in Appendix 2 below). This, in combination with the reduction in turbine numbers for the consented East Anglia ONE site, has reduced the contribution from the project and the East Anglia zone to projected collision mortality to an extent such that we do not consider that further engagement from us regarding this project is required. This position is subject to the satisfactory resolution of our query raised in response to ECO17 (see below) regarding legal certainty of the reduction in turbine numbers for East Anglia ONE, and subject to the increase in turbine height for East Anglia THREE being secured through an appropriate condition within the DCO."</i></p>
ECMM	<b>Ecology offshore – marine mammals</b>	
ECMM15	Whale and Dolphin Conservation (WDC)	WDC and the Applicant in their Statement of Common Ground (SoCG) [REP2-056] had a number of areas of disagreement. In its comments on Written Representations [REP3-005] the Applicant highlighted recommendations made by WDC which had not yet been addressed, including ground-truthing of modelled noise assessment data and making collected data available to stakeholders, and provided its response. Have WDC's concerns been addressed by the Applicant and, if not, what additional information does WDC consider should be provided?
ECMM15	Applicant's	Ground truthing is a method of validating a model by comparing actual data with the predictions of the

	response	model and will therefore take place during construction once appropriate data is available. This is secured under conditions 18(1) to (3) (Construction monitoring) of Schedules 10 to 13 which require monitoring of underwater noise generated by the installation of the first four piled foundations. This data will be submitted in a report to the MMO as per the DML conditions, at which point the data can be requested from the MMO.
ECMM16	Natural England (NE)	At the first Development Consent Order (DCO) Issue Specific Hearing (ISH) on 29 June 2016, Schedule 1 Part 3 Requirement 5 of the dDCO was discussed. The Applicant described footprints for foundation bases and that wider 4m diameter piles would be required for triangular bases with smaller 3.5m diameter piles for square bases, but the square bases would have a greater pile footprint. Can NE confirm that it is content with the temporal and spatial piling assessment, and that it is immaterial for EIA or HRA assessment whether 3.5m or 4m diameter piles are used in the way the Applicant proposes?
ECMM16	Applicant's response	<p>The Applicant responded to this question in the Schedule of Issues (Document Reference: Deadline 1/DCO ISH/Schedule of Issues (Applicant's Response)). In that response the Applicant stated that:</p> <p><i>“Should a three legged (triangular) jacket be used for all turbine foundations, a maximum of 516 pin piles would be required. Should a four legged (square) jacket be used a maximum of 688 pin piles would be required.”</i></p> <p>and that</p> <p><i>“In relation to potential noise effects, the maximum hammer energy used for piling jackets will be 1,800kJ, although on a precautionary basis 2,000kJ was modelled for the noise impact assessment. Therefore the worst case assessment has been modelled because whichever pin pile diameter is used the maximum hammer energy will not exceed 2000kJ and by assessing this on the basis of a four legged jacket (with a maximum pin pile diameter of 3.5m) the greatest number of piles (688) has been assessed.”</i></p>
ECMM17	Applicant	In its post-hearing submission for Deadline 4 [REP4-032] the MMO states that it would not expect the Secretary of State to instruct the MMO who to consult. MMO suggests it more appropriate for the Applicant to consult with The Wildlife Trusts (TWT) during drafting, and the Trusts should be named in the draft Deemed marine Licence (dDML). Is the Applicant willing to name TWT and WDC in the dDML?

ECMM17	Applicant's response	<p>The Applicant understands that the MMO's position is as follows:</p> <ul style="list-style-type: none"> <li>• That it is not appropriate for the Secretary of State to instruct the MMO on who should be consulted on the MMMP, because this is a decision for the MMO as the regulatory body. Instead, if the Secretary of State considers it necessary to direct who should be consulted, The Wildlife Trusts (TWT) should be named in the DMLs;</li> <li>• That the MMO would not consult TWT on the MMMP as a matter of course; and</li> <li>• That it would be more appropriate for the Applicant to consult TWT on the MMMP before submitting it to the MMO.</li> </ul> <p>Therefore, the Applicant understands that the MMO's position is not that TWT should be named in the DML, but rather that this would be preferable to the Secretary of State stipulating which bodies the MMO should consult, and further, that it would be more appropriate for the Applicant to consult TWT prior to submitting the MMMP to the MMO rather than naming TWT in the DML as a body for the MMO to consult.</p> <p>The Applicant has submitted a draft MMMP as an application document, and it is listed as a certified document at Article 32 of the draft Order. Condition 13(1)(f) of the relevant DMLs requires the MMMP to be in accordance with the draft MMMP. The Wildlife Trust has therefore already had an opportunity to comment on the draft MMMP.</p> <p>In TWT's and WDC's Relevant Representation they both welcomed the inclusion of the MMMP. Furthermore both WDC and TWT commented that the MMMP should deal with disturbance. However as previously discussed at the recent hearings, the Applicant has designed the MMMP to deal with injury, and disturbance to harbour porpoise will be dealt with in the Site Integrity Plan. WDC also commented that the MMMP should cover the period from construction through to decommissioning on the assumption that the MMMP is a Marine Mammal Monitoring Programme. However, this is not the purpose of the MMMP, which is designed as a Marine Mammal Mitigation Protocol.</p> <p>Given TWT and WDC have already been consulted on the draft MMMP the Applicant does not consider it necessary or appropriate to name TWT or WDC as a consultee to the MMMP in the</p>
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		DML.
ECMM18	Rijkswaterstaat	In the SoCG between Rijkswaterstaat [REP2-047] and the Applicant, it is stated that the Applicant will discuss the Marine Mammal Mitigation Protocol (MMMP) with Rijkswaterstaat once the document has been progressed with the relevant UK authorities. Is Rijkswaterstaat satisfied with this approach?
ECMM18	Applicant's response	Not applicable to the Applicant
EL	<b>Ecology onshore</b>	
EL8	Applicant	The Applicant's response to the ExA's FWQs [REP2-028] states that ' <i>an Arboricultural Clerk of Works will be appointed during construction</i> '. Please clarify the timescale for the appointment of the Arboricultural Clerk of Works. Is this secured in the dDCO?
EL8	Applicant's response	<p>An Arboricultural Clerk of Works is secured within Section 3.2 of the OLEMS (as secured by requirements 14 and 21 of the draft Order). No timeframes are stipulated in that document, however as stated in Requirement 14 (1) and 21(1):</p> <p>"No stage of the connection works may commence until for that stage a written landscaping management scheme and associated work programme (which accords with the outline landscape and ecological management strategy) has been submitted to and approved by the relevant planning authority in consultation with Natural England."</p> <p>It should be noted that due to the fact that East Anglia THREE cables will be pulled through ducts installed by East Anglia ONE, an Arboricultural Clerk of Works may not be required for East Anglia THREE.</p> <p>The Applicant anticipates that, if required, the appointment of the Arboricultural Clerk of Works would be agreed with the local authorities ahead of the commencement of any relevant works. The OLEMS will be amended to reflect this.</p>
EL9	NE	Is NE content that Schedule 1 Part 3 Requirement 21 of the dDCO submitted at Deadline 4 [REP4-003]

		sufficiently secures mitigation in relation to wintering Brent Geese?
EL9	Applicant's response	<p>In Natural England's relevant representation it is stated that:</p> <p><i>"Natural England's main concern for onshore ornithology involved wintering dark bellied Brent geese at the Deben Estuary SPA. However, the Applicant's commitment to seasonal construction restrictions has addressed our concerns."</i></p> <p>The commitment was also agreed within the SoCG with Natural England (Document Reference: Deadline 2 / SoCG/ Natural England and Applicant).</p> <p>The wording describing the mitigation in Table 2, section 5.2 of the OLEMS was agreed between the Applicant and Natural England as part of the Evidence Plan process. During the Examination, Natural England requested that the mitigation contained in the OLEMS be signposted within the DCO. The Applicant clarified this by amending Requirement 21(3) within the draft Order accordingly.</p>
EL10	Applicant, Suffolk County Council (SCC)	At the Environmental ISH on 7 September 2016, the Applicant and SCC responded to the ExA question regarding mitigation measures for skylark, saying that the measures had been agreed. Can the parties confirm this and state what the measures are and how they are secured?
EL10	Applicant's response	The Applicant and Suffolk County Council (SCC) have agreed that the Applicant will make a financial contribution towards SCC identifying and preparing two plots in accordance with the Countryside Stewardship option AB4, to be managed by SCC for 10 years specifically as Skylark habitat. The financial contribution payable is £2,500 and this also includes provision for landowner liaison, crop loss compensation and annual site inspection. The Applicant has prepared a letter which is being sent to SCC to confirm the arrangements. Drafts of the letter have been shared between parties and the terms of the letter have been agreed. A copy of the draft letter is attached (document reference: Deadline 5/Skylark mitigation/ The Applicant). The contribution will be paid to SCC prior to the end of the East Anglia THREE examination and therefore, once paid, will be secured. SCC has confirmed to the Applicant that the contribution will be sufficient to mitigate any potential impacts on Priority Species.
MGPP	<b>Marine Processes</b>	

MGPP10	Applicant	Please provide further details of the various methods for the removal of concrete mattresses that were referred to in response to the ExA's FWQ, MGPP3 [REP2-028].
MGPP10	Applicant's response	<p>The method(s) for the removal of mattresses would follow best practice and guidelines at the time of decommissioning. The final agreed method would take account of any relevant health and safety and environmental considerations and would be agreed with the relevant authorities at that time. This will form part of the Decommissioning Programme which will be approved by the Secretary of State (secured through Requirement 10 of the draft Order). The specific method for mattress removal has not yet been selected however the Applicant is aware of the following general approaches adopted on other projects that may therefore be considered:</p> <ul style="list-style-type: none"> <li>○ Stack several mattresses subsea and recover to surface in one lift.</li> <li>○ Load subsea either singly or collectively using a modified skip or similar and lift to surface.</li> <li>○ Utilise steel wire rope nets or similar and lift to surface.</li> <li>○ Use of a mechanical grab.</li> </ul>
HRA	<b>Habitats Regulations Assessment</b>	
HRA11	RSPB, Applicant	In the SoCG with the Applicant [REP2-049] the RSPB, using its preferred parameters, calculates that for Flamborough and Filey Coast pSPA gannet, the in-combination collision risk from EA3 is 11% of the population, which it does not consider a small contribution. The RSPB states that mortality could be significantly reduced through an increase in draft height, and that it is in discussion with the Applicant. Can the parties provide an update on these discussions and whether the issue can be resolved?
HRA11	Applicant's response	<p>The Applicant has committed to an increase in the draught height of 70% of the turbines in the East Anglia THREE site by 2m. This has been discussed with the RSPB. Updated CRM for East Anglia THREE including this design change have been provided in an update to the note submitted at Deadline 4 (EA ONE CRM Revised for Final Wind Farm Design [REP4-011]) for submission at Deadline 5 (Document Reference: Deadline 5/ Revised CRM/ The Applicant).</p> <p>The Applicant proposes that the increase in draught height is secured through an amendment to Schedule 10 of the DCO as follows (amended wording shown in red):</p>

		<p><i>Design parameters</i></p> <p><i>1.-(1) Subject to paragraph (2), no wind turbine generator forming part of the authorised scheme may—</i></p> <p><i>(a) exceed a height of 247 metres when measured from LAT to the tip of the vertical blade;</i></p> <p><i>(b) exceed a height of 150.6 metres to the height of the centreline of the generator shaft forming part of the hub when measured from LAT;</i></p> <p><i>(c) exceed a rotor diameter of 220 metres;</i></p> <p><i>(d) be less than 675 metres from the nearest wind turbine generator in either direction perpendicular to the approximate prevailing wind direction (crosswind) or be less than 900 metres from the nearest wind turbine generator in either direction which is in line with the approximate prevailing wind direction (downwind);</i></p> <p><i>(e) have a draught height of less than 22 metres from MHWS.</i></p> <p><i>(2) The draught height of at least seventy percent of the total number of wind turbine generators comprised in the authorised scheme and the authorised scheme in licence 2 (generation) taken together must not be less than 24 metres from MHWS</i></p> <p><i>(3) In condition 1(1) and 1(2) above, references to the location of a wind turbine generator are references to the centre point of that turbine.</i></p> <p><i>"draught height" means the distance between the lowest point of the rotating blade of the wind turbine generator and MHWS</i></p> <p><i>A corresponding amendment will also be made to Schedule 11.</i></p> <p><i>In Natural England's note responding to the updated CRM and submitted at Deadline V, the Applicant notes that Natural England state:</i></p> <p><i>"Natural England welcome the proposal to increase the draft height to 24m across 70% of the windfarm site. We accept the principle that raising the draft height will result in a reduction in collision risk.</i></p> <p><i>Natural England also acknowledge that (subject to the reductions in the EA1 design being legally binding), the updated cumulative totals including EA3 are lower than the most recently consented totals for Hornsea Project 2."</i></p>
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		<p>RSPB also comment in their response to Deadline V as follows:</p> <p><i>"The RSPB's concerns regarding significance of cumulative and in-combination impacts on gannet, kittiwake and great black-backed gull have been reduced as a result of a commitment from the Applicant to raise the height of the turbines by 2m over 70% of the East Anglia THREE site (see our recalculations of potential collision risk in Appendix 2 below). This, in combination with the reduction in turbine numbers for the consented East Anglia ONE site, has reduced the contribution from the project and the East Anglia zone to projected collision mortality to an extent such that we do not consider that further engagement from us regarding this project is required. This position is subject to the satisfactory resolution of our query raised in response to ECO17 (see below) regarding legal certainty of the reduction in turbine numbers for East Anglia ONE, and subject to the increase in turbine height for East Anglia THREE being secured through an appropriate condition within the DCO."</i></p>
HRA12	Applicant and NE	In Appendix 2 of Information for Habitats Regulations Assessment [APP-103] at paragraph 16, the Applicant refers to a NE and JNCC document (Natural England 2013). Could either party please provide this as an examination document?
HRA12	Applicant's response	This document has been submitted by the Applicant for Deadline 5 (Document Reference: Deadline 5 / JNCC and NE suggested tiers for CIA).
HRA13	All Interested Parties	The ExA invites responses related to the Applicant's assessment of effects on the Southern North Sea pSAC [REP4-016], the draft Site Integrity Plan (SIP) [REP4-013] and the drafting of Condition 13 of the dDMLs to secure the SIP [REP4-003 and 004].
HRA13	Applicant's response	<p>Stakeholder responses received by the Applicant to date (The MMO and Natural England) have expressed in principle support for the approach taken. It should be noted that Natural England provided further advice beyond that previously given to the Applicant in their Post Hearing Response (REP4-029). On the basis of this the Applicant asked for further clarity on further work Natural England wished to see on the HRA. Their advice is submitted as Deadline 5/ Second Written Questions/NE Advice and Meeting Note/HRA13 (a record of a meeting of 26<sup>th</sup> September and a follow-up note from Natural England respectively).</p> <p>The Applicant will continue to work with stakeholders to refine the SIP and DML condition. Note that no</p>

		response has been received to date following issue to WDC or TWT.
HRA14	Applicant	The Applicant states in its answers to the ExA's FWQ [REP2-028] that it has provided the revised/additional HRA Integrity Matrices as REP2-088. However, this submission only includes amended HRA Screening Matrices. Please can the Applicant also provide the amended Integrity Matrices as requested at HRA9 of the ExA's FWQ [PD-012]? Please also provide these in Word version.
HRA14	Applicant's response	These have been submitted at Deadline 5 as requested. (Document Reference Deadline 5/ Revised Integrity Matrices/ The Applicant).
HRA15	RSPB	NE takes the view that although an adverse effect on the kittiwake population of the Flamborough and Filey Coast pSPA and Flamborough Head and Bempton Cliffs SPA due to in-combination collision mortality cannot be ruled out, the EA THREE contribution is so small as to not materially alter the significance or the likelihood of an adverse effect on the integrity of the SPA. Does the RSPB agree with this position?
HRA15	Applicant's response	Not applicable to the Applicant
HRA16	Applicant	In NE's Appendix 3 of its written submission for Deadline 4 [REP4-029], it is noted that cumulative and in-combination CRM total figures presented in the Applicant's Deadline 4 submission document - EA ONE CRM Revised for Final Wind Farm Design [REP4-011] - differ from those in the EA3 Environmental Statement (ES) and for the Hornsea 2 Offshore Wind Farm. Can the Applicant provide an explanation of the differences and confirm the correct figures for both EIA and HRA CRMs?
HRA16	Applicant's response	<p>The differences discussed by NE have been reviewed and explanations for them provided in the update to the CRM note (Deadline 4 / CRM Revised for Final Wind Farm Design [REP4-011]) to be submitted at Deadline 5 (Document Reference: Deadline 5 / Revised CRM/ The Applicant). A summary of the reasons for these variations is provided below.</p> <p>The figures provided in the ES for gannet, kittiwake, lesser black-backed gull and great black-backed gull were superseded in a project update which was attached to the final SoCG with Natural England (Document Reference: Deadline 2/ SoCG / NE and Applicant) as Annex 1 (Ornithology and Updated</p>

		<p>Cumulative Collision Risk Tables) of Appendix 2 (Relevant Representation and EATL Response). This update was required to take into account revisions to the Hornsea Project Two Wind Farm which were reported after the East Anglia THREE ES was submitted. Thus, this discrepancy noted by Natural England related to out of date values which had already been revised. Furthermore, aside from the updates to East Anglia ONE and East Anglia THREE collision estimates discussed in the current note, there are no discrepancies between the cumulative totals in East Anglia THREE (Document Reference: Deadline 2/ SoCG / NE and Applicant) and those provided in the current document (and the previous iteration of this note which Natural England reviewed).</p> <p>The second discrepancy noted by Natural England was between the cumulative totals in the Applicants updated CRM note submitted at Deadline 4 (Document Reference: Deadline 2/ SoCG / NE and Applicant) and those accepted by Natural England at the end of the Hornsea Project Two examination. As noted by Natural England in their Deadline 4 submission, it is difficult to determine the source of differences because a full list of individual projects was not presented in the Memorandum of Understanding at the end of the Hornsea Project Two examination (or the previous iteration of the current note). However, if it is assumed that the list of projects assessed for Hornsea Project Two remained the same at the conclusion of the examination as was used in the project's ES, the following projects which are included in the East Anglia THREE assessment were not included for Hornsea Project Two:</p> <ul style="list-style-type: none"><li>• Beatrice Demonstrator;</li><li>• Gunfleet Sands;</li><li>• Lynn and Inner Dowsing;</li><li>• Scroby Sands; and</li><li>• Rampion</li></ul> <p>For the first four of these wind farms (i.e. all except Rampion) the mortality estimates for all species are small (&lt;5) or zero, and thus this creates minimal differences. However, the collision estimates for Rampion are much larger for most species (e.g. annual mortalities for gannet: 102; kittiwake: 121; lesser black-backed gull: 8; great black-backed gull: 26; herring gull: 155). Therefore this is likely to account for at least some of the difference referred to by Natural England.</p> <p>There also appear to be other differences in the cumulative figures presented for the two projects which are harder to identify. For example, the Hornsea Project Two cumulative assessment included attempts to account for revised wind farm designs in their assessment, but it is not always straightforward to</p>
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		<p>determine if these estimated values were used in the assessment or provided for information. In order that the values used for the East Anglia THREE cumulative assessment can be fully scrutinised, the full tables and source references are included in Appendix 2 of the revised CRM note (including the updated East Anglia ONE and East Anglia THREE values). These tables should also provide the starting point for subsequent cumulative assessments.</p> <p>The same comment (about discrepancies) was made by Natural England in relation to the in-combination totals attributed to the Flamborough and Filey Coast pSPA populations of gannet and kittiwake. The causes for these differences are the same as for the cumulative totals discussed above (i.e. revised cumulative tables and different selections of wind farms for inclusion).</p>
HRA17	Applicant	Please could the Applicant respond to the comments made by NE regarding the Updated Southern North Sea pSAC HRA report in Appendix 2 of its Deadline 4 response [REP4-029]?
HRA17	Applicant's response	<p>Set out below are Natural England's comments at Deadline 4 followed by the Applicant's response:</p> <p><i>"Natural England welcomes the assessment against the North Sea MU reference population as previously advised. This is in line with JNCC and Natural England (2016) draft Conservation Objectives and Advice on Activities, which states that it is how the impacts within the site translate into effects on the North Sea MU population that are of greatest concern. However, based on ongoing progression of the Hornsea Zone HRAs we advise that further consideration is given to how the impacts described may directly impact the pSAC. For example, the percentage of the pSAC area should be calculated and included alongside the percentage of the MU area affected by underwater noise during construction in tables 5.2.1 and 5.2.2. These figures should be included for all the assessed impacts. Natural England considers it is not possible to conclude there is no potential for LSE, as per paragraph 89, if an assessment of impacts on the pSAC is not undertaken."</i></p> <p>The Applicant based the submitted HRA on advice provided by Natural England on the 17<sup>th</sup> August 2016. There was no update on this advice until Deadline 4. The Applicant will work with Natural England to incorporate any additional assessment based upon this new advice, and will submit a revised assessment at Deadline 6.</p> <p><i>"Natural England queries what the basis for the second assumption in the indicative scenario is? Why</i></p>

*couldn't two projects in the same zone, with overlapping consent windows, be piling at the same time? Whilst we accept it is unlikely that all four Dogger Bank projects would be piling at the same time, Natural England believes it is possible that more than one project per zone may be piling at the same time or two piling events may happen at the same time for one project. Therefore, we consider that it is not appropriate that Hornsea 1 and Dogger Bank Creyke Beck A and Teesside A and B should be excluded from the indicative scenario."*

This is described as an indicative scenario and was based on the best available information at the time of writing. This scenario was intended to show a more realistic situation than the worst case scenario which all parties agree is unrealistic. The assumptions of this scenario in the HRA were unchanged from those included within the cumulative impact assessment submitted as part of the Environmental Statement (see paragraphs 521 to 524 of Document Reference 6.1.12 for an explanation ) which was agreed as part of the Evidence Plan process by Natural England and the MMO. The Applicant agrees that many permutations are possible and will further discuss the parameters of an indicative scenario with Natural England.

*"Natural England advises that the projects included in the in-combination assessment listed in table 5.5.2 and A2 should include the Inch Cape, Neart a Gaoithe and Firth of Forth projects. The ultimate fate of these projects is still undecided so they should be included to ensure the worst case scenario is captured. The status of Triton Knoll also requires updating as the Electrical System was granted consent at the beginning of September 2016."*

Natural England commented upon a draft of the HRA report. Prior to submission of the final report at Deadline 4 the Applicant received legal advice on the status of the Scottish projects and these were then included within the worst case cumulative scenario. Likewise the status of Triton Knoll changed between the draft version of the document being made available to Natural England and submission of the final document. Again the submitted version reflects the change suggested by Natural England.

*"The assessments under both the worst-case and indicative scenarios should be carried out in the context of the pSAC as far as is possible at this time. This should include an assessment of the percentage of the pSAC habitat that could be affected and include all noisy activities that may potentially impact the pSAC, such as those listed in paragraph 130, including seismic surveys. Natural England would also advise the addition of Unexploded Ordnance clearance to that list."*

		As stated above, the Applicant will work with Natural England to refine the assessment and will include UXO and seismic survey impacts as per their advice. Note that text on seismic survey impacts changed between the draft provided to Natural England and the final version submitted at Deadline 4 (Document Reference: Deadline 4 / HRA).												
HRA18	Applicant	Please could the Applicant respond to the comments made by NE on the draft SIP in Appendix 1 of its Deadline 4 response [REP4-029]?												
HRA18	Applicant's response	<p>Natural England was provided with a draft version of the SIP on which they provided comments. These comments were received prior to that document being submitted at Deadline 4 and hence these comments were addressed within the submitted document (see Appendix 1 of the SIP). The section of this table containing responses to Natural England's comments is reproduced below.</p> <table border="1"> <thead> <tr> <th>Consultee</th> <th>Comment</th> <th>Response</th> </tr> </thead> <tbody> <tr> <td>Natural England</td> <td>General Natural England welcomes the Southern North Sea pSAC Site Integrity Plan as a stand-alone document to set out the approach to delivering any management or mitigation measures that are required to avoid significant disturbance of harbour porpoise and allow the conclusion of no adverse effect on site integrity to be made in relation to the Southern North Sea pSAC from the East Anglia THREE project</td> <td>Noted</td> </tr> <tr> <td>Natural England</td> <td>General Natural England would welcome further consideration and clarity being provided with respect to the timings and submission of work in relation to the delivering of some of the documents described in the Plan as outlined further below. It is imperative that adequate time is allowed prior to construction for consideration and implementation of the most appropriate mitigation and/or management measures.</td> <td>Noted. EATL will continue to discuss refinement to the indicative milestones provided in this draft.</td> </tr> <tr> <td>Natural England</td> <td>Section 1.2 The final part of section 1.2 is confusing and may benefit</td> <td>Noted, the wording has been changed as suggested.</td> </tr> </tbody> </table>	Consultee	Comment	Response	Natural England	General Natural England welcomes the Southern North Sea pSAC Site Integrity Plan as a stand-alone document to set out the approach to delivering any management or mitigation measures that are required to avoid significant disturbance of harbour porpoise and allow the conclusion of no adverse effect on site integrity to be made in relation to the Southern North Sea pSAC from the East Anglia THREE project	Noted	Natural England	General Natural England would welcome further consideration and clarity being provided with respect to the timings and submission of work in relation to the delivering of some of the documents described in the Plan as outlined further below. It is imperative that adequate time is allowed prior to construction for consideration and implementation of the most appropriate mitigation and/or management measures.	Noted. EATL will continue to discuss refinement to the indicative milestones provided in this draft.	Natural England	Section 1.2 The final part of section 1.2 is confusing and may benefit	Noted, the wording has been changed as suggested.
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			from re-wording. It is not clear if the intention is to suggest that EPS licensing is the only way to deal with the issue of disturbance. Natural England advises that an EPS licence is not a form of mitigation to reduce acoustic disturbance. It may help to add in the wording <i>'...to reduce acoustic disturbance'</i> after the word 'requirements' in the final sentence and to make the intended role of EPS Licensing clearer.	
		Natural England	Section 5.4.3 Paragraph 48 states a noise prognosis report shall be prepared and submitted to the MMO prior to the start of construction. Given the complexities that may be involved in this and the implications for mitigation at East Anglia THREE; how long before construction will the noise prognosis be undertaken and can timings be secured in the Site Integrity Plan to ensure that enough time is allowed for it to be properly considered? This would also apply to the assessment of the ability of any mitigation measure alone or in-combination with other measures discussed in paragraphs 53-54.	An indicative timescale of at least 9 months prior to the start of piling has been stated in the timeline.
		Natural England	Natural England also queries whether, given the potential complexities involved, four months prior to construction is early enough for the MMMP to be submitted as stated in paragraph 31 and secured under Condition 13(f) of the DML.	EATL consider 4 months as the standard for marine licences to be acceptable for submitting the MMMP, however EATL welcome further discussion with the MMO/NE as required.
		Natural England	Table 1 Natural England welcomes the inclusion of Table 1 in Version 5 of the Plan, but the milestone for 'Submission and Review of draft Plan' is missing and as this includes all the implementation plans, method statements and monitoring requirements, we feel it is key to have this included.	This has now been added with timescale stated of minimum of 6 months prior to pile driving
		Natural England	Natural England welcomes the clear outlining of which mitigation measures may be feasible for East Anglia	Further detail will be added in future iterations of the Plan as

			THREE. However, we feel further detail should be included for each of these in future iterations of the Plan.	more information becomes available
		Natural England	Section 5.4.5 states that seasonal restrictions on pile driving are not included in the Plan as a potential mitigation or management measure by EATL, but there is no real justification for this provided and Natural England believes a seasonal/appropriate temporal restriction at East Anglia THREE could potentially be beneficial and may help to manage in-combination impacts on the pSAC. Therefore, we would advise that restrictions on pile driving be removed from section 5.4.5 and considered alongside measures 1-3.	EATL agrees that any seasonal restriction is covered by Measure 1 Schedule of Piling and therefore to include both is unnecessary duplication; updated.
HRA19	MMO	Could the MMO enlarge on its comments on harbour porpoise impacts provided in paragraph 2.1 of its post-hearing submission [REP4-032]? Is the MMO seeking to have all the proposed mitigation measures for the pSAC included in the draft SIP?		
HRA19	Applicant's response	See Applicants response to HRA 19 and 20 below.		
HRA20	NE	The approach proposed by the Applicant in relation to the draft SIP leaves detailed mitigation to be determined post-consent. Is NE satisfied that this approach meets the requirements of the Habitats Directive?		
HRA19 & 20	Applicant's response to 19 and 20	The detailing of the proposed mitigation measures for the pSAC is sufficiently set out in the draft SIP. As stated in the draft SIP the Plan provides a framework for further discussion by the Applicant with the MMO and other relevant stakeholders including SNCBs post consent to agree the exact details of any required project related management measures. Agreeing guiding principles will allow refinements to be made based on the best available knowledge and technology. This framework gives sufficient certainty to the competent authority that the mitigation measures will be put in place and that a conclusion of no adverse effect on site integrity can therefore be reached. The Secretary of State (with supporting advice from Natural England) drew a similar conclusion in respect of Condition 8 in the Hornsea Project 2 DCO (see Hornsea 2 HRA paragraph 15.157).		

FN	<b>Fishing and navigation</b>	
FN9	Applicant	In FWQ, question FN2 [PD-012], the ExA asked whether a copy of the Cefas report on shark by-watch could be provided. Although the Applicant has said in response to question FN2 [REP2-028] that it has reviewed this report and has not identified any content within it which would result in any material change to the assessment in the ES, the ExA would welcome the report being submitted as an Examination document.
FN9	Applicant's response	The report has been submitted at Deadline 5 (Document reference Deadline 5/ Shark By-watch report/ Cefas).
FN10	VisNed and NFFO, Applicant	Within the SoCG with the Applicant [REP2-058], VisNed and NFFO at ID6 have expressed reservations as to whether vessels would return to fish within operational wind farms, and the viability of doing so. What evidence exists that fishing activity within the North Sea does not return or is maintained at previous levels in the context of operational wind farms? Please provide any evidential documentation relating to this.
FN10	Applicant's response	<p>The Applicant is not aware of any documents which evidence levels of fishing activity within operational wind farms in the North Sea. It is noted, however, that beam trawling vessels have been observed fishing in the operational Greater Gabbard Windfarm site on the AIS resource Marine traffic (<a href="http://www.marinetraffic.com">www.marinetraffic.com</a>).</p> <p>It is also noted that ID 26 of the SoCG between the Applicant and VisNed/NFFO states that: <i>"Dutch fishermen have stated that they would be able to fish within the East Anglia THREE windfarm in safe conditions. However, VisNed/NFFO consider that it is unlikely that fishing will be able to take place to the same degree as in an open sea area and fishing within the operational windfarm would likely require modifications to existing operating patterns due to the presence of infrastructure"</i>. Therefore whilst fishing activities would require some modifications once the wind farm is operational, it is accepted that fishing would continue in the area.</p> <p>Furthermore, the Applicant has committed to a linear turbine arrangement with minimum in row separation of 675m and between row separations of 900m, which will facilitate the resumption of fishing</p>

		in the area post construction. The Applicant's current indicative plans are for a NNW-SSE arrangement which corresponds to VisNed's preference, as documented in the SoCG between VisNed/NFFO and the Applicant (ID27), of aligning the turbines in an approximately N-S direction.
FN11	Applicant	<p>The SoCG with VisNed and NFFO [REP2-058] states that in the event of a cable becoming exposed, notification will be issued via the SeaFish Kingfisher Information Service and Notice to Mariners.</p> <p>a) How will it be known if a cable becomes exposed?</p> <p>b) How is notification secured in the dDMLs?</p> <p>c) What provision would be made (and how would this be secured in the DMLs) for the appropriate protection of cable assets pending the completion of any necessary remedial works?</p>
FN11	Applicant's response	<p>a) The cable specification, installation and monitoring plan will include proposals for monitoring offshore cables including cable protection during the operational lifetime of the authorised scheme, as well as a risk based approach to the management of unburied or shallow buried cables. This is secured in DML condition 13(1)(g)(iii) of schedules 10 to 15.</p> <p>Following on from the initial post construction swathe bathymetry survey (secured by condition 19(2)(b) of the DMLs), additional surveys are likely to be undertaken by means of ROVs (remote operated vehicles) or other appropriate methods. Actual survey technique will be decided at the time of the survey having regard to site specific circumstances. The frequency and extent of surveys will be defined when the operation and maintenance strategy has been finalised. Survey frequency will depend on technical factors such as the presence and assessment of mobile seabed forms, cable burial depths achieved and economic factors. In addition to surveys, there are other technologies that will help detect potential exposures, such as DTS (distributed temperature sensing) systems, which measure temperatures by means of optical fibres functioning as linear sensors. If a cable became exposed, it would be immediately identified remotely. DTS systems are extremely accurate and can locate changes in temperature to a resolution of 1m at 30km. East Anglia ONE is installing DTS in export and array cables and it is currently anticipated that East Anglia THREE will do the same.</p>

b) Condition 13(d)(v) of the DMLs secures that a fisheries liaison and co-existence plan (FLCP) will be established between the Applicant and the relevant commercial fisheries stakeholders. The FLCP will include a provision for timely and efficient Notice to Mariners, Kingfisher Bulletins and other navigational warnings to be issued to the fishing industry. The outline structure of the FLCP is provided below; such notifications would be addressed in the 'Information Exchange' section:

- Fisheries Liaison
  - Guidance and Information
  - Fishing Liaison Roles and Responsibilities
  - Information Exchange
- Mitigation and Coexistence
  - Working Coexistence Procedures
  - Employment of local fishermen
  - Appointing local FIRs and OFLOs
  - Code of Good Practice for All Vessels
  - Claims for loss or damage of gear

In addition, condition 7(11) of the DMLs requires notification of damage, destruction or decay to the MMO, MCA, Trinity House and the UKHO.

c) As outlined above and documented within the SoCG between the Applicant and VisNed/NFFO, the following commitments have been made to ensure the appropriate protection of cable assets pending the completion of any remedial works:

ID 22: "In the event that a cable becomes exposed on the seabed notification will be issued via the SeaFish Kingfisher Information Services and Notice to Mariners. EATL believe that cable protection measures are adequately addressed within the DML".

ID 25: "Where cable protection options are necessary the location of these areas will be recorded via SeaFish KingFisher Information Services".

These matters will be dealt with through the FLCP, which is secured at condition 13(d)(v) of the

		DMLs. As set out above, condition 7(11) of the DMLs requires notification of damage, destruction or decay to the MMO, MCA, Trinity House and the UKHO. In addition, condition 8(5) of the DMLs secures that, if directed by Trinity House, certain steps are taken to prevent any danger to navigation (i.e. lay down of buoys or exhibiting of lighting).
FN12	Applicant, VisNed and NFFO	<p>In the SoCG with VisNed and NFFO [REP2-058], VisNed expresses concern about the snagging potential of the nose of Pulse/Sum Wing gear on cable installations within the project area where buried to a depth of 0.5m.</p> <p>a) can the Applicant please comment on this?</p> <p>b) How many vessels use or are likely to use this type of gear during the project's lifetime?</p>
FN12	Applicant's response	<p>a) Cables will be buried with the objective of minimising as far as practicably possible effects on fishing operations. A detailed cable laying plan will be provided which incorporates a burial risk assessment to ascertain suitable burial depths and cable laying techniques in accordance with condition 13 (g)(ii) of the DMLs and with the objective of achieving the appropriate level of cable burial.</p> <p>Pulse and sum wing gears are effectively hydrofoils onto which the net is attached. The only part of the pulse/sum wing which makes significant contact with the seabed is the nose on the centre of the wing. This means that the drag, and associated gear penetration depth is greatly reduced compared to traditional beam trawling methods. As a result of this reduced contact and overall weight, snagging potential is greatly reduced. Furthermore, to work effectively, both pulse and sum wing gear require relatively clean, soft ground. It is likely that in such areas cable burial depths in excess of 0.5m would be achievable. Therefore, in addition to the reduced ground contact and penetration depth of pulse/sum wing gear, snagging potential would be minimised.</p> <p>b) Based on consultation undertaken directly with the fleet (based at Texel/Den Helder) which fishes the area, there are between 30-35 vessels which use the area. At the time of writing the ES it was estimated that 80% of these vessels used pulse wing gear.</p>

FN13	Comité Régional des Pêches Maritimes (Nord Pas-de-Calais Picardie)	In its SoCG [REP3-013], Comité Régional des Pêches Maritimes (Nord Pas-de-Calais Picardie) has concerns (ID4) regarding increasing fishing activity on grounds fished by French fleets arising from cumulative displacement of other fleets as a result of wind farm development and other activities. Are there any specific comments on the cumulative assessment methodology of displacement effects used in the ES?
FN13	Applicant's response	The potential impact of displacement activity from fleets that currently fish within the Application boundary has been assessed directly within the ES (sections 14.6.1.7, 14.6.2.7 and 14.1.1.2.). No significant displacement effects were identified. The results were based on levels of fishing activity identified within the existing environment, the temporary nature of any exclusion during construction and lack of any permanent loss of fishing ground during the operational phase. The potential cumulative impacts of increased fishing efforts have been assessed directly within the ES (section 14.1.1.3) and this assessment took account of a comprehensive range of developments and other marine spatial planning activities including aggregate extraction, MCZs and SACs. No significant cumulative effects were identified. The Applicant considers that the assessment methodology is appropriate and robust.
FN14	Applicant, MMO	<p>Harwich Fishermen's Association reiterated at the Environmental ISH on 7 September 2016 its expressed concern relating to the ability of its members to fish, and their assessment of risk, in areas of the export cable route where cable crossings would occur. Similar concerns are also stated in the SoCG with the UK Commercial Fisheries Working Group [REP4-009].</p> <p>a) What assurances can the Applicant provide as to safety and the ability to fish within the cable corridor?</p> <p>b) Who would be the arbiter of whether the area of the cable corridor was fishable or not?</p> <p>c) If it falls to individual fishermen to make the assessment of risk, what up-to-date information would be available to inform them?</p>
FN14	Applicant's response	<p>a) The following commitments relate specifically to the safety and the ability to fish within the cable corridor:</p> <ul style="list-style-type: none"> <li>• One full sea floor coverage swath-bathymetry survey that meets the requirements of IHO</li> </ul>

S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography will be undertaken (condition 19(2)(b) of the DMLs).

- If considered appropriate, following the above swath-bathymetry survey, the Applicant has committed to undertaking inshore trawl and/or drift net surveys (e.g. post installation fishing trials) where cable protection methods have been employed (condition 13 (g) (iv) Schedules 12 and 13) with the objective of establishing if the area can be fished over.
- Following the above, should any such obstructions resulting from burial of Work No. 5A (export cables) be identified which, in the reasonable opinion of the MMO, may be considered to interfere with fishing, the undertaker must take such steps to remove them as the MMO in its reasonable opinion shall require (condition 8(11) of schedules 12 and 13).

b) It is the Applicant's understanding that the MMO would arbitrate with respect to appropriate rectification in the event that an obstacle which could constitute interference to fishing is identified. However, the MMO state in their submission at Deadline 4 that it is not within their remit to advise individuals where and when it is safe to fish. Therefore, following the results of the surveys described above, it would be the role of the master of the vessel to assess whether it is safe to fish in areas where cable protection has been deployed. The Applicant believes that this is the correct approach and that the commitments outlined above provide as much assurance as is reasonably possible to minimise disruption to fishing and provide assurance as to safety and the ability to fish within the cable corridor.

c) The results of swath-bathymetry and overtrawl/driftnet trials would be issued to fishermen through the Commercial Fisheries Working Group. In addition, there are commitments made by the applicant which relate to the notification of potential risks. These are documented within the SoCG between VisNed/NFFO and the Applicant. They ensure that up to date information would be available to inform fishermen in this regard:

ID 22: *"In the event that a cable becomes exposed on the seabed notification will be issued via the SeaFish Kingfisher Information Services and Notice to Mariners."*

ID 25: *"Where cable protection options are necessary the location of these areas will be recorded via SeaFish KingFisher Information Services".*

		As set out above, these matters will be dealt with through the FLCP, which is secured by condition 13(d)(v) of the DMLs.
FN15	Applicant	In the SoCG with Rijkwaterstaat [REP2-047], the position is noted that when the final layout of the EA THREE array is available prior to construction, Rijkwaterstaat will be consulted regarding the nautical safety aspects south of the array. Please explain how such consultation is secured within the dDCO.
FN15	Applicant's response	As a UK based project it is appropriate that the Applicant works, in the first instance, with those organisations appointed to regulate, guide and implement UK and European nautical safety requirements with which it must comply. Once the array layout has been agreed with MMO and MCA and therefore in their view has adequately addressed all relevant concerns, consultation will be undertaken with RWS to seek their views. The Applicant has consulted with RWS throughout the consenting process and has made a commitment in the SoCG to continue to do so. The Applicant does not consider it necessary or appropriate to name Rijkwaterstaat as a consultee in the draft Order as it is not a UK statutory consultee and any consultation undertaken by the Applicant will be on an informal basis.
FN16	Applicant	Please comment on the NFFO/VisNed view expressed at ID24 of the SoCG [REP2-058] that, whilst welcoming the provision within the DMLs for trawl or drift net surveys, this should also include an over-trawlability survey covering areas trawled on the offshore cable route and the inter-array cables.
FN16	Applicant's response	<p>The Applicant considers that it is not necessary to undertake a trawl survey outside of the area of the transmission assets (Work No 5A) because it is anticipated that appropriate burial depths will be achieved in areas where the Dutch pulse beam trawling fleet operate. As noted in FN12 above, the reduced penetration depth and ground contact of pulse beam gear will also reduce the potential for snagging to occur. Post installation surveys will be undertaken to ascertain achieved cable burial depths.</p> <p>In addition, the following commitments have been made within the SoCG between VisNed/NFFO and the Applicant and will be secured via the FLCP under condition 13(d)(v):</p> <p><i>ID 18: "Cables shall be installed with the objective of minimising as far as practicably possible</i></p>

		<p><i>effects on longer term fishing operations. A detailed cable laying plan will be provided which incorporates a burial risk assessment to ascertain suitable burial depths and cable laying techniques in accordance with the draft DML and with the objective of achieving the maximum level of cable burial".</i></p> <p><i>ID 21: "In order to minimise potential interference to fishing activity (e.g. snagging risks) to as far as reasonably practicable, cables will be buried to a minimum depth of 0.5m".</i></p> <p><i>ID 22: "In the event that a cable becomes exposed on the seabed notification will be issued via the SeaFish Kingfisher Information Services".</i></p> <p><i>ID23: "EATL will request that cable protection manufacturers evaluate the extent to which the various protection options can be safely fished over".</i></p> <p><i>ID 24: "EATL will adopt a hierarchical approach to cable protection options in the event that full burial of the entire cable length is not achievable. Under this approach, which will involve consultation with relevant fishing organisations and their representatives, protection options will be assessed using a number of criteria including the aim of selecting protection methods which would cause the least disturbance to fishing practices".</i></p> <p><i>ID 25 "Where cable protection options are necessary the location of these areas will be recorded via SeaFish KingFisher Information Services".</i></p> <p><i>ID 22: "In the event that a cable becomes exposed on the seabed notification will be issued via the SeaFish Kingfisher Information Services".</i></p> <p><i>ID 25: "Where cable protection options are necessary the location of these areas will be recorded via SeaFish KingFisher Information Services".</i></p>
LH	<b>Visual, landscape and heritage</b>	
LH15	Applicant	Mid Suffolk District Council (MSDC) has now discharged Requirement 10 Parts (1) to (5) of the DCO for EA ONE, relating to design aspects of the Bramford substation (response at Deadline 4 to action points arising from the Environment ISH on 7 September 2016 [REP4-027]). In the approved details the external cladding for the EA ONE substation elements are shown as being shades of grey. This being the case, can the Applicant please explain the rationale for the colouring of the proposed EA THREE substations as dark green, as shown in the Other Environmental Information (OEI) visualisations [AS-024 to AS-027].
LH15	Applicant's	A detailed architectural review for the East Anglia ONE substation is documented in East Anglia

	response	<p>Bramford Connections Developments Architectural Report 2016 which was submitted to the ExA at Deadline 4 (Deadline 4/ EA ONE Architectural Plan). This identifies the preferred colour for the East Anglia ONE substation as being either green or grey. The choice of grey responds to the changes in the East Anglia ONE substation design in which the enclosed structure would be smaller and many of the components would be located externally. As these external components would be grey, the approach in the detailed design of East Anglia ONE has been to achieve continuity by making the substation building grey to create a coherent group of structures. This choice would also form an association between the East Anglia ONE substation and the nearby Bramford Substation which is coloured dark grey.</p> <p>In respect of the other selection criteria applied to the choice of colour, either green or grey would be appropriate choices, as they are both recessive colours in the landscape, and would avoid strong contrasts with the existing site conditions with consideration to seasonal colours and different backgrounds, against which the substation building and structures would be seen.</p> <p>In the East Anglia THREE visualisations, green is shown as it is considered an appropriate colour for the East Anglia THREE substation as this would comprise a much larger and more coherent structure, with a larger visual footprint and therefore a greater presence in views from the wider landscape. It is in this context that the importance of blending with the existing woodlands which surround much of the site is considered to be a priority, as the EA3 building can be surrounded but not hidden by it. The specific choice of colour and shade for the East Anglia THREE substation would be subject to a similar review at the detailed design phase, which would be carried out in consultation with the relevant consultees. The selection of grey as an alternative to green would not alter the findings of the assessment. The purpose of the detailed design would be to refine the design and further mitigate any residual effects. Therefore, what is shown in the current visualisations can be considered representative of the current worst case scenario.</p>
LH16	Applicant	In response to FWQ question LH11 [REP2-028] it is stated that the Design and Access Statement will be updated to refer to the design principles developed for EA ONE. Please provide this update.
LH16	Applicant's response	The DAS has been amended and has been Submitted for Deadline 5 Document reference: Deadline 5 / Revised DAS/LH16.
LH17	Applicant	As referenced in the Applicant's response to the ExA's FWQs [REP2-028] and the SCC/MSDC/ Suffolk

		Coastal District Council (SCDC) response to the ExA's FWQs [REP2-002], please provide an update on the further archaeological works that are being undertaken in connection with EA ONE and please confirm the timescale for the submission of a Revised Written Scheme of Investigation.
LH17	Applicant's response	East Anglia ONE is undertaking archaeological mitigation work encompassing excavation, strip, map and record and watching brief elements. East Anglia ONE is in the final stages of appointing a contractor to undertake the strip, map and record and watching brief elements. On appointment, the contractor will update the interim WSI which has been prepared in accordance with a SCC (Suffolk County Council) design brief and subsequently been agreed with SCC and Historic England. It is anticipated that the final WSI will be submitted to SCC in mid-November 2016.
LH18	Suffolk Preservation Society (SPS)	Further to comments contained within the SoCG between SPS and the Applicant [REP3-014], please comment on whether, following further review, it is considered that the Applicant's Schedule of Listed Heritage Assets accurately reflects all the listed heritage assets contained within the assessment Zone of Theoretical Visibility, and that the assessment methodologies for the cultural heritage and landscape and visual assessments are appropriate.
LH18	Applicant's response	Not applicable to the Applicant
LH19	SPS	Further to the SPS comments contained within the SoCG [REP3-014] in relation to the conclusions of the Landscape and Visual Assessment (LVIA) and the adequacy of the proposed mitigation, please can SPS state its current position following review of the Applicant's OEI?
LH19	Applicant's response	Not applicable to the Applicant
LH20	Applicant and SPS	Please provide any comments you may wish to make in regard to the paper submitted by Babergh and MSDC's [REP4-027] which addresses methodological issues arising from LVIA and heritage assessments.
LH20	Applicant's response	The Applicant welcomes the paper submitted by Babergh and MSDC. The assessment supports the work undertaken by the Applicant to date. The Applicant agrees with the methodology and findings of

		the assessment.
CL	<b>Construction onshore</b>	
CL10	Suffolk Coastal District Council and Waveney District Council, Applicant	In answer to FWQ question CL6 [REP2-002] it is stated that an appeal has been lodged against the refusal of an outline planning application for up to 215 dwellings etc. on land to the east of Bridge Farm, Top Street, Martlesham. The appeal is likely to be considered at a public inquiry in 2017. The proposed cable corridor passes through the centre of this site. Please comment on what implications there may be for the present EA THREE DCO application.
CL10	Applicant's response	<p>The Applicant is aware of the appeal by Gladman Developments (Gladman). SPRUK is in negotiation with Gladman and the landowners on behalf of both East Anglia ONE and the Applicant to acquire the rights required to deliver both the East Anglia ONE and East Anglia THREE projects.</p> <p>It is anticipated that Gladman's scheme can be designed in order to accommodate the Applicant's works, and that the two schemes can coexist.</p> <p>This land is also subject to powers of compulsory acquisition under the East Anglia ONE Order (as amended). Accordingly, regardless of the outcome of Gladman's planning application, and whether or not SPRUK reaches a successful negotiation with Gladman and the landowners, the necessary rights for East Anglia ONE, which will include rights for the East Anglia THREE ducts, can be secured through implementation of powers under the East Anglia ONE Order. Powers of compulsory acquisition to lay the cables (in the ducts which will be delivered under the East Anglia ONE Order) are still required under the draft Order to enable the East Anglia THREE scheme to be delivered.</p>
CL11	Environment Agency, NE, Local Planning Authorities (LPAs)	Please comment on the acceptability of the amendments to Schedule 1 Part 3 Requirement 13(2) in the dDCO (Landfall method statement) [REP4-004].
CL11	Applicant's response	Not applicable to the Applicant.

NV	<b>Noise and Vibration</b>													
NV6	Applicant	Please set out any amendments and/or additions to the noise assessment that may be required as a result of the use of Henley Road rather than Lower Road for the routeing of construction traffic as detailed in the Henley Road Assessment [AS-023].												
NV6	Applicant's response	<p>The Applicant has screened the traffic data (as used in the OEI, below) and the additional flows result in noise level changes of less than 0.1dB(A). Therefore, it is concluded that the proposed change of route will result in no impact to receptors on Henley Road and no further noise assessment is necessary.</p> <table border="1"> <thead> <tr> <th></th> <th>Henley Road Background 2016 flows (18Hr AAWT)</th> <th>Henley Road Background 2020 flows (18Hr AAWT)</th> <th>Henley Road Construction flows (Single Phase)</th> </tr> </thead> <tbody> <tr> <td>All Vehicles</td> <td>7,258</td> <td>7,816</td> <td>38</td> </tr> <tr> <td>HGVs</td> <td>38</td> <td>41</td> <td>27</td> </tr> </tbody> </table> <p>AAWT - Annual Average Weekday Traffic</p>		Henley Road Background 2016 flows (18Hr AAWT)	Henley Road Background 2020 flows (18Hr AAWT)	Henley Road Construction flows (Single Phase)	All Vehicles	7,258	7,816	38	HGVs	38	41	27
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All Vehicles	7,258	7,816	38											
HGVs	38	41	27											
NV7	Applicant	Please set out any amendments and/or additions to the noise assessment that may be required as a result of the potential implementation of a HVAC substation for EA ONE.												
NV7	Applicant's response	For the purposes of EIA the detailed design of the East Anglia ONE and East Anglia THREE substations was not defined. Therefore the assessment is based upon the commitment from the East Anglia ONE Order (as amended) and the draft East Anglia THREE Order to achieve the stated limits at the named receptors. Given this commitment, the nature of the East Anglia ONE substation is not relevant to the design chosen, which will need to achieve the limits set.												
TT	<b>Traffic and Transport</b>													

TT8	Applicant, SCC, Ipswich Borough Council (IBC), SCDC, MSDC.	Included in the Applicant's OEI [AS-023] is an alternative route for construction traffic, using Henley Road rather than Lower Road to serve access 'AD'. Please provide any comments you may wish to make in regard to this alternative route.
TT8	Applicant's response	The change to Henley Road was proposed by the local authorities. The Applicant is content (from assessment undertaken and presented within the OEI) that there are no EIA implications as a result of this change.
TT9	Applicant	Please provide copies of any amended plans required to be submitted as a result of the amended route along Henley Road [AS-023].
TT9	Applicant's response	No plans will be amended. The route is on adopted public highways outside of the order limits, which are unaffected by this change.
TT10	Applicant	In response to the ExA FWQ question PN2 an indicative layout for the Paper Mill Lane Primary Construction Consolidation Site (PCCS) [REP2-091] was provided. SCC's response to the ExA's FWQs [REP2-002] indicated that detailed designs for the PCCSs are being drawn up by the EA ONE developer. If available, please provide copies of these detailed plans. If not yet available, then please provide clarification on the specific layout of the access/egress arrangements for both of the PCCSs and confirm whether or not these arrangements would remain the same for both the EA ONE and EA THREE proposals.
TT10	Applicant's response	The final layouts of the East Anglia ONE CCSs are not currently available. It is anticipated that these will be available later this year. With respect to the access arrangements, East Anglia ONE has developed a preliminary design for the accesses into the two Primary CCSs. These have been submitted to SCC but are still under review so are not in a final form.  The East Anglia THREE CCSs will, at most, only retain a portion of the hardstanding from the East Anglia ONE CCSs and their design would utilise the access points defined in the Access Management Plan (Outline Access Management Plan Document Reference: 8.9 of the DCO application).
SE	<b>Socio-economic</b>	

SE9	Applicant	In the SoCG Annex 1, Table 1 item nos. 179 to 182, and Table 2 [REP2-036] SCC and SCDC/Waveney District Councils raise concerns about the evidence base from EA ONE not being up-to-date and it needing to be broadened and improved in regard to the EA THREE proposal to reflect, for example, the evolution of the New Anglia LEP Skills Manifesto. Please confirm the mechanisms by which the EA ONE Skills Strategy will be updated and improved and how in turn this will be considered and secured in the dDCO for EA THREE.
SE9	Applicant's response	<p>The assessment methodology utilised for the East Anglia THREE socio economic impact assessment built on the methodology used by East Anglia ONE, however the East Anglia THREE assessment updated the baseline on the labour market from East Anglia ONE, taking into account the most up to date data available at that time. This is described further in the Applicant's response to question SE5 of the ExA's First Written Questions (Reference: Deadline 2/ First Written Questions/ Applicant's Response). The Applicant therefore considers that the socio economic assessment undertaken remains robust and that all relevant and appropriate up to date information available was incorporated.</p> <p>SPR met with SCC on 22<sup>nd</sup> September 2016 during which a way forward on the approach to skills was discussed. SPR and SCC are both committed to develop the skills agenda to ensure that full benefits can be realised for East Anglia THREE. SPR and SCC have agreed to work in partnership and are jointly developing overarching principles. The existing East Anglia ONE skills strategy is now being delivered and SPR/ SCC are reviewing the various initiatives to ensure that they can be expanded to deliver skills benefits through East Anglia THREE investment. Both SPR and SCC have agreed that this is best achieved outwith the formal planning process and should not be included in the draft Order.</p>
SE10	Applicant and SCC	In Annex 1, Table 1, item no. 176 of the SoCG [REP2-036] SCC states that the labour market has changed significantly since the original submission for EA ONE. Please provide additional comment on this matter.
SE10	Applicant's response	<p>As stated in SE9, the East Anglia THREE assessment updated the baseline on the labour market from East Anglia ONE, taking into account the most up to date data available at that time.</p> <p>The Applicant therefore considers that the assessment undertaken remains robust and that all relevant and appropriate up to date information available was incorporated.</p>

SE11	Applicant	Please provide further comment in regard to SCC's assertions regarding displacement and skills shortages that are detailed in Annex 1, Table 1, item no. 183 of the SoCG [REP2-036].
SE11	Applicant's response	<p>The East Anglia THREE Environmental Statement Chapter 28 Socio Economic Impact Assessment, table 28.10 sets out the impact scenario options considered in the assessment. The assessment concludes that, under a worst case scenario the East of England / East Anglia economy would be able to sustain this demand without exacerbating labour market skills gaps. The Applicant's response to written question SE5 further supports this position.</p> <p>The Applicant considers that the socio economic assessment undertaken remains robust and that all relevant and appropriate up to date information available was incorporated.</p>
DCO	<b>Draft Development Consent Order (dDCO)</b>	
DCO1	Applicant, LPAs, NE and other agencies with an interest in securing mitigation	<p><b>Article 2(1) – "Commence"</b></p> <p>Further to the discussion of this definition at the first DCO ISH [PD-005 Annex F at pg iv], the most recent version of the dDCO [REP4-003-4] still contains a broad range of terrestrial operations that can take place before formal commencement, defined as:</p> <p><i>'site clearance, demolition work, archaeological investigations, environmental surveys, investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, the temporary display of site notices or advertisements...'</i></p> <p>Later in the dDCO, there are Requirements which provide for the approval of plans or documents that are relevant to such operations; for example Requirement 20 (archaeology) provides that:</p> <p><b>'20.—(1) No stage of the connection works may commence until for that stage a written scheme of archaeological investigation (which accords with the outline written scheme of investigation (onshore)) has, after consultation with Historic England and Suffolk County Council, been submitted to and approved by the relevant planning authority.'</b></p> <p>As a consequence of the drafting in Article 2(1), it is still possible that 'archaeological investigations' could be carried out before formal commencement. As currently drafted, there is nothing to ensure that</p>

		<p>the written scheme of archaeological investigation has to have been approved before the start of 'archaeological investigations' that are carried out before formal commencement, or to prevent pre-commencement works from having an uncontrolled adverse effect on archaeological assets.</p> <p>Similar considerations apply to elements of Requirements 11, 13, 14, 16, 17, 18, 19, 21, 22, 23, 24, 27, 28 and 29 all of which require the approval of a plan or document before commencement. These relate to documents such as the ecological management plan, the code of construction practice and the traffic management plan, or protection and mitigation for European protected species, again protecting or managing significant assets or outcomes from adverse effects.</p> <p>a) The Applicant is asked to propose a change to the drafting of Article 2(1) to ensure that pre-commencement works are not exempted from the operation of relevant plans and documents, or to explain more clearly why such a change is not required.</p> <p>b) LPAs are asked to respond to the Applicant's proposals at (a) above by Deadline 6 in the Examination timetable.</p>
DCO1	Applicant's response	<p>Onshore construction of the East Anglia THREE project will primarily comprise of pulling cables through preinstalled ducts, the excavation of jointing bays to join cables and construction of up to two onshore substations within a defined footprint. There will be no open trenching for the purposes of laying cables (save for minimal works at the substation location). Therefore it is not anticipated that any pre-commencement activity, as defined in the draft Order, associated with such works would give rise to any material impacts.</p> <p>Construction pre-commencement works are preparatory and/or investigative in nature and are not in themselves intended to be a major undertaking. This is why (in line with the made East Anglia ONE Order) certain activities have been excluded from the definition of "Commence" within the East Anglia THREE draft Order. By retaining flexibility with regard to certain pre-commencement activities, risks to construction and programme are more readily managed by allowing potential issues to be identified and addressed early on, or for suitable mitigation to be identified and programmed ahead of the main construction phase formally beginning.</p> <p>It is important to note that, during any stage of the process, it is in the Applicant's interest to conduct</p>

		<p>activities such as archaeological or environmental surveys in an approved manner and with agreement with those responsible for approving the adequacy of the work e.g. local authority specialists. In doing so, the Applicant will have conducted these activities in such a manner that the works can be relied upon for the purposes of discharging obligations, DCO requirements or other such commitments at a later stage. An alternative approach could lead to abortive work, unnecessary costs and delay to the programme by having to repeat the process.</p> <p>The draft Order has been prepared to follow the East Anglia ONE Order (as amended). This ensures that these related projects are delivered in a consistent manner, which provides efficiency and consistency for the Local Planning Authorities (LPA), as well as the Applicant. In addition, it should be noted that triggering "commencement" of the project due to "pre-commencement activities" can have unintended consequences such as those associated with requirements set out in the draft Order coming into force earlier than intended and hence proving much more challenging to meet and therefore more difficult to discharge.</p> <p>However, the Applicant understands the concerns expressed by the ExA and therefore to provide the necessary assurances, proposes that additional drafting is included in the draft Order to require prior notification for all site clearance activities, and for archaeological investigations but only at the substation location because archaeological investigations for the cable route will be a consideration for East Anglia ONE prior to and when laying a duct for East Anglia THREE. Similarly, ground investigations and/ or remediation are only likely to be required at the substation location (if at all). However, it is not considered necessary to give prior notification for this or for the other activities (demolition; environmental surveys; erection of temporary means of enclosure; or temporary display of site notices) because these works will not give rise to material effects which would otherwise be controlled through plans to be approved prior to commencement of works.</p> <p>The prior notification would require the Applicant to notify the LPA of the relevant site clearance/ archaeological works proposed and would give the LPA an opportunity to require approval of those works before they are undertaken. A deeming provision would also be proposed, so that if the LPA did not respond within 7 days, the works could proceed as planned. The Applicant considers that such a change would strike the right balance between ensuring that LPAs had oversight of pre-commencement activity and ensuring the project was not unduly delayed.</p>
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DCO2	Applicant and LPAs	<p><b>Article 2(1) – “Maintain”</b></p> <p>Further to the discussion of this definition at the first DCO ISH [PD-005 Annex F at pg vi], the most recent version of the dDCO [REP4-003-4] still contains a broad definition of “maintain” as follows:</p> <p><i>“maintain” includes inspect, repair, adjust, alter, remove, reconstruct and replace, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of <b>Schedule 1</b> (ancillary works)...’.</i></p> <p>The ExA understands that the qualification ‘and further includes’ was added to the definition to address concerns about the inclusion of ‘remove, reconstruct and replace’ in the definition, by limiting these to ancillary works in Part 2 of Schedule 1. However, as currently drafted, the dDCO also retains ‘remove, reconstruct and replace’ as general and unqualified elements of the definition.</p> <p>In the absence of any qualification, it is not clear that maintenance including an unqualified and general power of removal, reconstruction and replacement has been assessed within the ES and falls within the Rochdale envelope for the application proposal.</p> <p>For the reasons raised at the first hearing and having regard to the ES / Rochdale envelope point above, it does not appear appropriate to the ExA that these elements should remain as general and unqualified. Nor has the ExA found an explanation for the current drafting in the relevant documents submitted for subsequent deadlines that addresses these concerns.</p> <p>a) The Applicant is asked to propose a change to the drafting of Article 2(1) to provide that ‘remove, reconstruct and replace’ in the definition of “maintain” are limited to ancillary works in Part 2 of Schedule 1, or to explain more clearly why such a change is not required, with specific reference to the manner in which removal, reconstruction and replacement has been assessed within the ES.</p> <p>b) LPAs are asked to respond the Applicant’s proposals at (a) above by Deadline 6 in the Examination timetable.</p>
DCO2	Applicant's response	<p>The Applicant notes that the recently made Order for Hornsea 2 contains the following definition of maintain:</p> <p><i>“maintain” includes inspect, repair, adjust, alter, remove, reconstruct and replace any of the authorised</i></p>

*development; and any derivative of "maintain" must be construed accordingly;'*

In responding to this point in the DCO Schedule of Issues, the Applicant explained:

*"This wording reflects precisely the wording used in the EA ONE Order. The wording was subject to some discussion at the EA ONE examination hearings and was agreed with the MMO. Among the reasons for the wording in this form are to make clear that in addition to "inspect repair adjust alter":*

*(i) the ancillary works can be removed reconstructed and replaced;*

*(ii) any component part of any wind turbine generator, offshore substation or meteorological mast can be removed reconstructed or replaced; and*

*(iii) Foundations cannot be removed reconstructed or replaced.*

*It was expressly agreed with the MMO at the EA ONE examination that this wording reflected those maintenance operations for which no new marine licence would normally be required, provided that those operations had already been assessed in the Environmental Statement. Under Condition 13(j) of the Generation, Transmission and Interconnector DMLs an offshore operations and maintenance plan must be submitted to the MMO which makes provision for review and resubmission every three years during the operational phase. Accordingly the Applicant considers that the wording in the draft Order should remain as drafted and that the wording in the made Order for DBTA&B does not sufficiently make clear the position with regard to ancillary works, component parts, or foundations. The Applicant understands that the MMO agrees with this approach."*

The Outline Offshore Operations and Maintenance Plan (OOOMP) referred to above (which will be a certified document under Article 32) contains a table at Appendix 1 which lists the offshore operations and maintenance envisaged and states whether this has been assessed in the ES. As can be seen from this, offshore cable lift and replacement of an entire cable and foundation replacement has not been assessed in the ES. Cable repairs would need to be assessed on a case by case basis to ensure that the impacts would be within those envisaged within the ES and this would need to be agreed with the MMO.

The definition of maintenance in the draft Order has been drafted to specifically exclude foundation replacement and to only permit maintenance to the extent assessed by the ES. As set out above, removal and replacement of offshore cables would need to be assessed on a case by case basis. However, to clarify the Applicant's approach, the Applicant proposes to amend the definition of "maintain" as follows:

		<p>"maintain" includes inspect, repair, adjust, alter, remove, reconstruct and replace, and further includes remove, reconstruct and replace to the extent assessed in the environmental statement including for any of the ancillary works in Part 2 of Schedule 1 (ancillary works) and any component part of any wind turbine generator, offshore electrical station, accommodation platform or meteorological mast described in Part 1 of Schedule 1 (authorised development) (but does not include including the alteration, removal or replacement of foundations;), to the extent assessed in the environmental statement; and "maintenance" is construed accordingly"</p>
DCO3	Applicant and MMO	<p><b>Article 5 and the draft Deemed Marine Licences – Transfer of benefit</b></p> <p>Article 5 of the dDCO has the effect of permitting the transfer of each Deemed Marine Licence (DML) to another person. Whilst the ExA notes the intention of the Applicant, as made clear at the first DCO ISH, was that the primary reason for the DML structure was to support the intended phasing of delivery by the same undertaker, it remains theoretically possible that all six DMLs might be held by different undertakers. Were this to be the case, the ExA would retain concerns about the need for greater security for works coordination than is currently provided in the dDCO. In order to respond to this:</p> <ul style="list-style-type: none"> <li>a) The Applicant is asked to review the drafting of Article 5 and/or the DMLs and to recommend a means of drafting to ensure that the intention that the DMLs will benefit a single undertaker is appropriately secured.</li> <li>b) MMO comments are sought.</li> </ul>
DCO3	Applicant's response	<p>In practice, where a single offshore wind farm is proposed (as is the case here) a single undertaker will consent, finance and construct the wind farm, whether in a single or multiple phases, and the transfer of transmission assets to an OFTO will only take place following completion of construction works, so that the OFTO is in place for the operational period. This is known as the 'Generator build' model.</p> <p>However in the event that more than one undertaker constructs the infrastructure, provided that the maximum parameters are specified for (i) each individual DML and (ii) across all DMLs combined together, agreement will need to be reached on how development will be divided to meet the parameters in the different licences. This is a matter for commercial negotiations to be agreed between the transferor and transferee at the time that a transfer takes place.</p>

		<p>In the schedule of issues, Schedule 1 (Parts 1 and 2) the ExA asked:</p> <p><i>"as the benefit of the DCO can be transferred in whole or in part, it could be possible for different undertakers to construct each phase, it should therefore be clear how the different phases will be co-ordinated and who will be responsible for exercising the powers in the DCO, in particular in relation to the CA powers."</i></p> <p>The applicant responded:</p> <p><i>"as matters stand, each phase, if the phasing option is to be adopted, would be undertaken by East Anglia THREE Limited (EATL). This is no different from other offshore wind farm DCOs where the undertaker may, rather than choosing to build out a whole offshore array or substation, choose to construct them in more than one phase as part of construction programming. If a different undertaker were to construct one phase, any co-ordination arrangements would be addressed in the transfer agreement. Exercise of compulsory acquisition powers would no longer be relevant since the onshore transmission works will no longer be phased and the land on which the substation will be located has been secured through negotiated agreement."</i></p> <p>As set out above, similar principles would apply in the case of DML transfers. There is no restriction in any offshore wind farm DCO on subdivision of a DCO or DMLs among different undertakers. In each case it is left to the transferor in that event to agree suitable commercial provisions on co-ordination arrangements in the transfer agreement. The fact that the DMLs have been separated out in the draft DCO in the present case does not alter that position.</p>
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DCO4	Applicant, MMO, LPAs	<p><b>Article 5(4) and (8) – Transfer of benefit</b>  As presently drafted [REP4-003 -004], Article 5(4) provides for the transfer of benefit of any of the Order, including offshore works, without the consent of the Secretary of State, in circumstances where any/all onshore compulsory acquisition/injurious affection claims (the CA claims) have been resolved (5(8)(b)).</p> <p>The ExA does not fully understand the need or reasoning for this provision, beyond the fact that equivalent provisions have been included in made DCOs. Particularly, what is the relevance of the resolution of the CA claims to the question of whether or not a transfer of benefit needs the consent of the Secretary of State?</p> <p>a) The Applicant is requested to provide a clear explanation of the underlying reason for this drafting.</p> <p>b) Views of the MMO and LPAs are also sought.</p>
DCO4	Applicant's response	<p>In the event that any/or onshore compulsory acquisition/injurious affection claims (the CA claims) had not been resolved, the Secretary of State may wish to ensure that any proposed transferee of the benefit of any of the Order was of sufficient financial standing to meet those claims.</p>
DCO5	The Applicant and the Crown estate (TCE)	<p><b>Article 37 – Crown rights</b>  As presently drafted [REP4-003-4], this Article does not provide unconditional Crown consent and still reserves what amounts to a post-approval consent mechanism to TCE.</p> <p>Is there any reason why TCE requires a post-approval consent?</p>
DCO5	Applicant's response	<p>The Applicant is continuing to engage with TCE in relation to the drafting of Article 37 with particular regard to what, if any, changes should be made to Article 37 in light of the Secretary of State's approach to drafting of the Crown Rights article in the DCO for Hornsea Project 2.</p>
DCO6	Applicant	<p><b>Requirement 12 – Detailed design parameters onshore</b>  Further to the ExA's request to the Applicant to review the application of the term "shall" throughout the dDCO [PD-005 Annex F at pg iv], this provision as currently drafted [REP4-003 - 004] includes use of the</p>

		<p>term “must” instead of “may”. In 12(4) &amp; 12(8)(a) this does not appear to make sense.</p> <p>The Applicant is requested to reconsider the changes of “may” to “must” and to propose alternative drafting or provide a view why the currently proposed drafting is appropriate.</p>
DCO6	Applicant's response	<p>PINS' Advice Note 15 provides guidance on drafting of DCOs. Paragraph 2 advises that DCOs should follow statutory drafting conventions for Statutory Instruments and that, in particular, applicants should, "avoid use of the words 'shall' or 'will' (because of ambiguity over whether they are an imperative or a statement of future intention)".</p> <p>For this reason, the draft Order was updated to avoid use of the terms 'shall' and 'will'. The same approach was taken to update the use of the term 'may', which could also be construed as an option rather than an imperative command.</p> <p>Following further consideration and to avoid any confusion, the Applicant proposes to amend Requirement 12 where negative commands are not clearly expressed. Therefore, for clarity the Applicant now proposes to amend Requirement 12(4) and 12(8)(a) as follows:</p> <p><i>12(4) <del>No</del> Buildings comprised in Work No.67 must <b>not</b> exceed a height of 25 metres above existing ground level and <del>no</del> external electrical equipment comprised in Work No. 67 must <b>not</b> exceed a height of 15 metres above existing ground level.</i></p> <p><i>12(8) In relation to the kiosks to be located within the onshore cable corridor-</i></p> <p><i>(a) <del>No</del> each stage of the connection works must <b>not</b> commence until details of the scale and appearance of the kiosks have been submitted to and approved in writing by the relevant planning authority;</i></p>
CA	<b>Compulsory Acquisition (CA)</b>	
CA18	Applicant	<p>In the response to the ExA’s schedule of issues arising from the dDCO [REP1-011] in respect of Article 15 (compulsory acquisition of land) it is stated that land subject to freehold acquisition is not subject to temporary possession powers or subject to acquisition of new rights, and can only be compulsorily acquired through freehold acquisition. The ExA believes this to be incorrect. Article 23(a)(ii) expressly</p>

		<p>permits the undertaker to take temporary possession of any of the other Order land (i.e. apart from that in Schedule 7 over which temporary possession is permitted by (a)(ii)) in respect of which no notice of entry has been served under section 11 of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 of the 1981 Act. Article 17 permits the compulsory acquisition of existing rights and new rights in all of the Order land including the land which is subject to freehold acquisition. Please comment.</p>
CA18	Applicant's response	<p>The Applicant acknowledges the point which is made by the ExA.</p> <p>The Applicant would not anticipate first exercising temporary possession powers over plots of land which are identified for freehold acquisition. The plots identified for freehold acquisition are at, and surround, the location of the substation(s). The Applicant requires permanent control over these plots of land, and the Applicant would need certainty that it had such control prior to construction of such key pieces of infrastructure commencing. As a result, the Applicant would be highly unlikely to rely on temporary possession powers to commence construction over these plots, which would then require a further notice to be served to acquire the freehold interests. In respect of the substation location, it is also important to secure the title to be able to grant the necessary interests to National Grid.</p> <p>The Applicant has in fact significantly progressed negotiations with the relevant landowners of the plots specified for freehold acquisition, with agreements being completed in respect of all plots apart from two, being plots 454B and 454C. Negotiations to acquire the freehold of these outstanding plots continue.</p> <p>If the ExA requires further comfort on this point, the following wording (shown in underline) could be added to the end of Article 23(a)(ii): <u>"any other Order land in respect of which no notice of entry has been served under section 11 of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 of the 1981 Act (apart from land specified in plots 449A, 450, 453, 454, 454A, 454B, 454C, 457, 458, 459, 460, 461, 462 and 463 of the book of reference which are identified for freehold acquisition);"</u></p> <p>For the avoidance of doubt, plot 454A is intended for freehold acquisition. The Book of Reference incorrectly identifies that permanent rights are sought over this plot, but the land plans and the Statement of Reasons correctly specify that this plot is intended for freehold acquisition. The landowner is aware that this plot of land is intended for freehold acquisition, and in fact agreements have been</p>

		completed with the relevant landowner on this basis. A revised version of the Book of Reference correcting this error will be submitted prior to the close of the examination period.
CA19	Applicant	Please explain if temporary possession powers will be used over land which is subject to freehold acquisition in accordance with Article 23(1)(a)(ii).
CA19	Applicant's response	For the reasons set out above in response to CA18, it would be highly unusual for the Applicant to exercise temporary possession powers over land it intends to acquire the freehold interests for.
CA20	Applicant	Can the Applicant please confirm if all the land shown in Schedule 5 is also in Schedule 7? If not, please explain if it is intended to exercise temporary possession powers over the plots in Schedule 5 in accordance with Article 23(1)(a)(ii)?
CA20	Applicant's response	<p>Yes, this is the Applicant's intention.</p> <p>The Applicant has noted that plot 440 is missing from Schedule 7 of the DCO which is clearly incorrect, as temporary possession is needed over this plot for cable laying purposes. This omission will be corrected in the next version of the DCO. Agreement has been reached with the landowner for this plot in any case.</p> <p>Temporary possession (as set out in Schedule 7) can be taken of any land where permanent rights (as set out in Schedule 5) will subsequently be acquired. The intention is to pull through the cables and construct the jointing bays under temporary powers and then, following completion of construction, to acquire permanent rights. This approach ensures that rights are only acquired in line with the as built infrastructure, following any micro-siting within the Order Limits.</p>
CA21	Applicant	It has been explained that it is not possible to narrow down the extent of the cable corridor until the construction design and methodology for EA ONE develops and is finalised. What provisions are in place to ensure that this is effectively communicated to the undertaker of EA THREE by the undertaker of EA ONE, to ensure that EA THREE decisions on the extent of compulsory acquisition can be taken as soon as possible and communicated to landowners?
CA21	Applicant's	Both the EA ONE project and the EA THREE project are being developed and built by SPRUK, being the

	response	<p>owner of the Applicant. In terms of the location of the ducts for EA THREE to be laid as part of the EA ONE project, landowners will be notified of the extent (both of the temporary possession and) of the permanent cable corridor through the exercise of the permanent rights by EA ONE once the EA ONE project has been constructed. In this way, landowners will be notified of the extent of the land required for the EA THREE ducts in the cable corridor as soon as possible.</p> <p>However, the location of the land required for the jointing bays, which are specific to the EA THREE project, will not be known until a contractor has been appointed and a decision made on the construction and design methodology. For example, the length of cables to be used by the contractor will have a bearing on the location of jointing bays. The final extent of the cable corridor cannot therefore be communicated to landowners until after completion of the construction works for East Anglia THREE.</p>
CA22	Applicant, Crown Estate	In light of section 135(1) of PA 2008, (the need for Crown consent for the compulsory acquisition of an interest in Crown land which is being held otherwise than by or on behalf of the Crown) and the ExA's understanding that such consent should be obtained before a DCO is made, please explain what progress has been made towards obtaining consent in respect of Plots 65, 66 and 190. In this regard, the Applicant's response to CA7 [REP2-028] is noted in which it is suggested that the Crown Estate's letter of 22 June 2016 [REP1-008] granted consent. However, whilst this letter granted consent for the inclusion of such rights in Article 37 of the dDCO, the Crown Estate Commissioners state that they reserve their rights as regards their consent to exercise such compulsory acquisition powers. (See also Second Written Question DCO5).
CA22	Applicant's response	Consent from the Crown Estate was obtained by the Applicant to the wording of Article 37 of the draft Order as currently drafted. However, in light of the Hornsea Offshore Wind Farm- Project Two DCO, the wording of this article is being revisited and discussions are ongoing in this regard with the Crown Estate.
CA23	Applicant	In answer to FWQ question CA13 [REP2- 028] the Applicant refers to advice provided on compulsory acquisition liability by Andrew Highwood of Savills, supported by Tim Cooper of Whirledge & Nott. Could a copy of this advice be provided as an Examination document?
CA23	Applicant's response	The advice received by the Applicant in relation to compulsory acquisition liability includes commercially confidential information.

		<p>The Applicant has provided a summary of the information provided under standard compulsory acquisition headings; Land Acquisition and Injurious Affection, Disturbance and Contingency. This document is provided at Deadline 5 (Document Reference: Deadline 5/ Compulsory Acquisition Advice (Redacted)/ CA23).</p> <p>As stated in the Applicant's answer to FWQ CA13 [REP2- 028], all costs have been taken into account including compensation for disturbance during construction and legal/professional fees.</p>
CA24	Applicant	In response to FWQ question CA14 [REP2-028] a copy of a signed Funding Agreement has been provided. However, the agreement is now incorrect in its recitals as it refers to the shareholders of East Anglia Offshore Wind Ltd as being Vattenfall Wind Power Ltd and Scottish Power Renewables. However, in the revised Statement of Reasons (Version 2 [REP2-033]) Scottish Power Renewables is now the sole shareholder. Can a revised Funding Agreement be provided to reflect this?
CA24	Applicant's response	The ExA is correct that the agreement erroneously refers to Vattenfall Wind Power Ltd being a shareholder of East Anglia Offshore Wind Ltd in the recitals. This was the correct position at the time the document was originally prepared. However, at the time that the agreement was signed and dated, the sole shareholder of East Anglia Offshore Wind Ltd was Scottish Power Renewables. Notwithstanding this, as the reference to Vattenfall Wind Power Ltd is only in the recitals of the agreement, it does not affect the operative provisions or the validity of the funding agreement. There are no obligations on Vattenfall Wind Power Ltd in the agreement, and indeed the agreement is not signed by Vattenfall Wind Power Ltd. As a result, the Applicant considers that it is not necessary to provide a revised funding agreement.
CA25	Applicant	Please provide an update in the form of a plot-by-plot analysis on negotiations and positions reached with all relevant parties where land and rights acquisitions and temporary possession are required, setting out the specific rights/interests that are being sought.
CA25	Applicant's response	A plot by plot analysis has been prepared together with an overlay plan of the land plans and works plans. These have been submitted at Deadline 5 (Document reference: Deadline 5/ Plot by Plot Analysis/ CA25).
CA26	Applicant	The revised Statement of Reasons [REP2-033] at 7.34 notes that Plots 199-218 (excluding plot numbers

		not used) include powers for cable installation and may be used as a construction compound for construction of the scheme (Work No. 29). Work 29 in the dDCO makes no reference to a construction compound. Can the Applicant please clarify the position?
CA26	Applicant's response	The reference to the construction compound in respect of Work 29 was in error. The Statement of Reasons has been updated and a revised document is provided at document reference Deadline 5/ Revised Statement of Reason/ CA26,CA28.
CA27	Applicant	In responding to FWQ CA15 [REP-028] the Applicant did not fully explain the implications in terms of CA having regard to jointing bay locations. Is the Applicant able to expand on the previous response?
CA27	Applicant's response	<p>In its response to FWQ CA15, the Applicant stated "Until the ducts have been installed as part of the East Anglia One Wind Farm project, and the construction and design methodology has been finalised, the Applicant will not be able to confirm the location of the cable jointing bays. It has therefore sought flexibility to be able to install cable jointing bays along the full extent of the cable route. The applicant has committed in the Outline Landscape and Ecological Management Strategy (OLEMS) to ensuring as far as possible that the installation of such jointing bays is contained to suitable locations, such as the edge of fields and away from highways to ensure the minimum disruption possible to the affected land.'</p> <p>In addition, the Applicant comments that the land required for the jointing bays satisfies the tests for compulsory acquisition set out in section 122 of the Planning Act 2008 as the land is required for the development to which the development consent relates and there is a compelling case in the public interest for the land to be acquired compulsorily. The compelling case exists as without the land for the jointing bays, the EA THREE project cannot be delivered. Jointing bays are essential to ensure that cables can be securely joined together at appropriate intervals along the entire cable route and that their integrity is preserved e.g. via inspection, monitoring and where necessary maintenance. Distance between jointing bays will be determined by the engineering contractor appointed to carry out the cable laying works; final proposals will be based on the characteristics of the route itself, the final electrical transmission solution and cable sizes selected and any relevant developments in cable technology, which amongst other things will define the maximum length of cable that can be pulled along any given section of the route. Not defining actual locations at this stage provides flexibility to respond to engineering requirements and technological developments.</p> <p>It is not yet possible to narrow down the locations of the jointing bays, but as stated in the Applicant's</p>

		previous response, as far as possible these will be contained in suitable locations to ensure minimum disruption to the affected land.
CA28	Applicant	Please review the Statement of Reasons (Version 2) [REP2-032], in particular the section on 'route description' as there appear to be a number of omissions and anomalies. For example, whilst the description refers to Works (as set out in Schedule 1, Part 1 of the dDCO), not all Works appear to be specifically referred to. Also, paragraph 7.37 refers to Work No. 35A although the dDCO only refers to Work No 35. Paragraph 7.37 describes Work No. 36 as including temporary rights to lay hardstanding, but the dDCO describes Work 36 as the temporary widening and upgrade of an existing track. Paragraph 7.43 refers to Work 53 as a permanent access, but the description of this Work in the dDCO is a new temporary vehicular access. Paragraph 7.45 refers to Plots 413 and 414 as lying to the east and not west of Bramford Road.
CA28	Applicant's response	An updated Statement of Reasons is provided at document reference Deadline 5/Updated Statement of Reasons/CA26,CA28 together with a comparison at document reference Deadline 5/Updated Statement of Reasons Compare.  The Applicant does not consider that the temporary right to lay hardstanding (for Work No. 36) is incompatible with the temporary widening and upgrade of an existing track: the wording 'temporary rights to lay hardstanding' does not preclude the 'temporary widening and upgrade of an existing track', nor vice versa.