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(By email only)

MMO Reference: DCO/2016/00005

Planning Inspectorate Reference: EN010078

Identification Number: 20024119

17 November 2020 Dear Rynd Smith,

Planning Act 2008, Scottish Power Renewables, Proposed East Anglia Two Offshore Windfarm Order

MMO Deadline 2 Response

On 19 December 2019, the Marine Management Organisation (the "MMO") received notice under section 56 of the Planning Act 2008 (the "PA 2008") that the Planning Inspectorate ("PINS") had accepted an application made by Scottish Power Renewables (the "Applicant") for determination of a development consent order (DCO) for the construction, maintenance and operation of the proposed East Anglia Two (EA2) Offshore Wind Farm (OWF) (the "DCO Application") (MMO ref: DCO/2016/00005; PINS ref: EN010078).

The Applicant seeks authorisation for the construction, operation and maintenance (O&M) of the DCO Application, comprising of up to 75 wind turbine generators together with associated onshore and offshore infrastructure and all associated development ("the "Project"). This includes two Deemed Marine Licences (DMLs) under Schedules 13 and 14.

This document comprises the MMO comments in respect of the DCO Application submitted in response to Deadline 1.

The MMO submits the following:

- 1. MMO Comments on Deadline 1 Submissions
- 2. MMO Other Comments
- 3. Comments on responses to the Examining Authority (ExA) Written Questions (ExQ1)

This written representation is submitted without prejudice to any future representation the MMO may make about the DCO Application throughout the examination process. This representation is also submitted without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for any other authorisation relevant to the proposed development.

Yours Sincerely



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1. MMO Comments on Deadline 1 Submissions

The MMO has reviewed a number of documents submitted at Deadline 1, these are shown in Appendix 1, any comments on these have been set out below.

The MMO notes that the Applicant and other Interested Parties have outstanding concerns and ongoing discussions on a number of offshore issues that may be resolved when the Applicant updates the relevant documents at Deadline 3. The MMO has noted these concerns but has not provided comments at this stage. The MMO will review the updated documents and relevant Interested Parties responses and provide comments at Deadline 4 or Deadline 5.

1.1 Historic England Written Representation (REP1-143)

- 1.1.1 The MMO defers all issues related to heritage assets and archaeology to Historic England.
- 1.1.2 The MMO agrees with point 5.3.1 of Historic England's Written Representation in that the wording of the Offshore In-Principle Monitoring Plan should be amended to read "The Outline WSI includes provision to update the document as the project design is refined and as the results of further archaeological assessment become available. With the final agreed WSI acting as a 'point-in-time' document and submitted to the Marine Management Organisation (MMO) 6 months in advance of the licensed activities".
- 1.1.3 The MMO supports the changes requested in 6.1.2 and 6.1.
- 1.1.4 The MMO concurs with Historic England's opinion raised in point 6.1.4 that Schedule 14, Part 2, Condition 13(1)(g) should be amended to read
 - 'A written scheme of archaeological investigation in relation to the offshore Order limits seaward of mean high water, which must be submitted to the statutory historic body at least six months prior to commencement of the licensed activities and to the MMO at least four months prior to commencement of the licensed activities and which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body (and, if relevant, Suffolk County Council) to include—'
- 1.1.5 The MMO supports the points raised by Historic England in Section 6.2.1 and 6.2.2.

1.2 Maritime and Coastguard Agency (MCA) Statement of Common Ground (AS-047)

1.2.1 The MMO welcomes point 'MCA-105' in the Statement of Common Ground (SoCG) that states that the Applicant will be placing all the 'standard conditions' in the DCO/DML and supports MCA in this consideration. The MMO looks forward to viewing the updated DCO/DML at deadline 3.

1.3 Trinity House Statement of Common Ground (AS-053)

- 1.3.1 The MMO supports Trinity House's position on the point TH-105' and look forward to viewing the updated DCO/DML at deadline 3.
- 1.3.2 The MMO welcomes Trinity House's support on Arbitration and has provided further comments in Section 3 of this document in response to ExA written question 1.5.18.

1.4 Applicant's Fisheries Liaison and Co-existence Plan (REP1-045)

1.4.1 The MMO notes the Outline Fisheries Liaison and Coexistence Plan will be developed further at the post consent stage. The MMO requests the Applicant provides further detail at this stage. The MMO believes there is enough information available to include more descriptive roles and responsibilities. A Fisheries Liaison and Co-existence Plan has been used on multiple OWF projects and as the document states it has been developed using best practices from East Anglia One. Therefore, the MMO requests that this section can be expanded with at least the expected roles and responsibilities – this can be amended at post consent if required.







1.4.2 Section 2.3 highlights that timescales will be added at the post consent stage. The MMO believes that as a minimum a table should be included to advise when information will be shared at the construction, operation and maintenance stages. The MMO notes this information is readily available similar to the table below:

Activity	Timing		
Activity	Tilling		
Construction activities	Notices and information distribution not less tha 2 weeks prior to the commencement of offshor construction activities.		
Pre and post construction surveys	Notices and information distribution not less than 2 weeks prior to the commencement of offshore construction activities.		
Operation and Maintenance (O&M) activities	Notices and information distribution not less than 2 weeks prior to the commencement of offshore O&M activities.		
Meetings	Consultation meetings as required throughout the project development.		
Unscheduled liaison	Additional unscheduled liaison and consultation will be undertaken by either the FLO or the FIR as required to address issues or fishermen's concerns as they arise.		

- 1.4.3 In addition to the above comments the MMO requests it is made clear within the document that 'the MMO will not act as arbitrator and will not be involved in discussions on the need for, or amount of, compensation being issued'. The MMO believes this should me made clear at this stage to ensure all parties are aware that the MMO will not be part of this process.
- 1.5 Applicant's Outline Landfall Construction Method Statement (REP1-042) & Natural England's (NE's) Comments on Draft Outline Landfall Construction Method Statement (REP1-153)
- 1.5.1 The MMO believes the Outline Landfall Construction Method Statement document is well structured. In light of NE's comments submitted at deadline 1 the MMO defers to NE and the Local Planning Authority (LPA) on the detail within this document.
- 1.5.2 The MMO notes the document is required under Requirement 13 of the DCO. The MMO notes the document references Works No.6 the offshore exit pits.
- 1.5.3 The MMO would like to open discussions with the Applicant and the LPA on how the information relating to offshore works would be reviewed by the MMO and if this is captured within the DMLs. The MMO believes any information relating to offshore works (including HDD works) below mean high water springs should be reviewed and approved under the DML.
- 1.6 Applicant's Outline Sabellaria Reef Management Plan (REP1-047)
- 1.6.1 The MMO believes the management proposals for Sabellaria reef are generally acceptable. The MMO agrees that any conflicts between the proposed development, Sabellaria reef and other receptors (e.g. archaeology) that can't be easily resolved by micro-siting should be addressed by consultation with the MMO, NE and Historic England.
- 1.6.2 In the Sabellaria reef management plan (Section 1.2, paragraph 6), it is stated that ground-truthing will be carried out using grab samples if visibility prevents confirmation by drop-down video. The MMO recommends exploring the use of either a freshwater lens or an acoustic camera as alternatives to grab sampling if a standard drop-down camera is insufficient. Please







- review Griffin et al. (2020) Effectiveness of acoustic cameras as tools for assessing biogenic structures formed by Sabellaria in highly turbid environments. Aquatic Conservation: Marine and Freshwater Ecosystems 30: 1121-1136.
- 1.6.3 The MMO believes this will assist in robust data as the patchy nature of many Sabellaria reefs would make it difficult to confirm the absence of this habitat using a benthic grab, which samples a very small area of the seabed each time it is deployed. Moreover, any grab samples that do extract reef will cause damage to the habitat.
- 1.6.4 The MMO still has concerns in the case that potential impacts on Sabellaria reef remain following practicable design changes, however the MMO defers to NE on maters under the Natural Environment and Rural Communities Act 2006.
- 1.6.5 The MMO notes the Applicant has advised that the Sabellaria Reef Management Plan will be secured through a condition which will be in the updated DCO submitted at Deadline 3. The MMO will review this amendment and provide any further comments at this stage.

1.7 Applicants ISAA (HRA) Addendum Marine Mammals (REP1-038)

1.7.1 Point 17 in Section 2 of the Habitat Regulations Assessment (HRA) Addendum states the following:

"The Applicant has also committed to the following in order to reduce the potential for significant disturbance of harbour porpoise in relation to the Conservation Objectives and current guidance for the SNS SAC. These commitments apply to the project alone case as well as in-combination with other projects:

Only one detonation at a time during UXO clearance operations in the offshore development areas. There would be no simultaneous UXO detonations in either season. In the summer period in the summer area potentially more than one UXO detonation could occur in a 24 hour period. In the winter period in the winter area, only one UXO detonation without mitigation could occur in a 24 hour period.

There would be no concurrent piling within the offshore development area in either season, with only one pile being installed at a time, with no overlap in the piling duration of any two piles. In the summer period in the summer area potentially more than one piling event could occur in a 24 hour period. In the winter period in the winter area, only one piling event **without mitigation** could occur in a 24 hour period.

During the winter period there would be no UXO detonation without mitigation in the offshore development area in the same 24 hour period as any piling without mitigation in the offshore development area.

There would be no concurrent piling or UXO clearance between the proposed East Anglia TWO and East Anglia ONE North projects in either season."

The MMO notes the Applicant is clear that there will be no concurrent piling or Unexploded Ordnance (UXO) clearance between EA1N and EA2 in either season. However, The MMO is unsure as to why there is a reference to unmitigated piling and UXO, e.g. "only one UXO detonation without mitigation could occur in a 24-hour period". The MMO understands that any piling activity or UXO clearance will need to be, and should be, appropriately mitigated. The MMO requests the Applicant could clarify this and that this is clear in both the Southern North Sea (SNS) Special Area of Conservation (SAC) Site Integrity Plans (SIP) and the Marine Mammal Mitigation Protocol (MMMP).

1.7.2 The MMO believes having an appropriate MMMP and SNS SAC SIP in place is likely to reduce the risk of potential impact on marine mammals.





- 1.7.3 The Applicant proposes that the In Principle SIP for the Project is expanded in scope to reflect the project-alone effects as well as in-combination effects. Then should the Applicant wish to undertake multiple UXO clearance or piling events on the same day in the winter period, this will be possible if it can be demonstrated that effective mitigation can be provided.
- 1.7.4 The MMO does not believe the approach to updating the SIP for project-alone effects is appropriate and will provide further comments at Deadline 3.

1.8 Ornithology

- 1.8.1 The MMO has reviewed the Deadline 1 submission made by the Royal Society for the Protection of Birds (RSPB) (REP1- 180) and notes their point that the Special Protection Area (SPA) citation does not reflect the decline in bird populations. The MMO defers further comment on this matter to NE.
- 1.8.2 The MMO notes that in REP1-047 [Offshore Ornithology Cumulation and In Combination Collision Risk Update-Rev-01] the Applicant has made reference to updated estimates for several bird species from those presented within the Environmental Statement, Chapter 12 Offshore Ornithology (APP-060) and the Information to Support Appropriate Assessment Report (ISAA) (APP-043). The Applicant further states that this does not alter the conclusions of the Habitats Regulations Assessment (HRA). The MMO defers further comment on this matter to NE.
- 1.8.3 The MMO observes that NE has advised that mitigation regarding Red throated diver is front loaded, including consideration of hub height. The MMO is largely in agreement with this view and consider that where possible parameters of draft height are considered and implemented into the DML as part of the design envelope.
- 1.8.4 The MMO further observes that NE advocate for the construction of the array in excess of 10 kilometres (km) from the Outer Thames Estuary SPA. The MMO defers further comment on this matter to NE but note that this approach may require further assessment of other aspects of the proposed construction, for example cable protection.
- 1.8.5 In their Deadline 1 submission NE notes that the Appropriate Assessment should take into account O&M activities. The MMO supports this approach, but advise that should additional O&M consents be necessary, further assessment of these impacts is likely to be required.
- 1.8.6 The MMO understands that NE has suggested a seasonal restriction should be in place in respect of cable laying activity in the Outer Thames Estuary SPA. The MMO expects to see this reflected in the DML if it is deemed to be an acceptable form of mitigation. The MMO defer further comment until Deadline 4, once a revised DML has been submitted by the Applicant.
- 1.8.7 In respect of all proposed DML conditions, the MMO urges that the wording is concurrent with the 'Five Tests'. These are:
 - 1. The condition must be **Necessary**.
 - 2. The condition must **Relate** to the activity or development.
 - 3. The condition must be **Precise**.
 - 4. The condition must be **Enforceable**.
 - 5. The condition must be **Reasonable**.

The MMO reserves the right to comment on matters related to the DML in future deadlines.

1.8.8 The MMO notes that NE propose that post-construction ornithological monitoring is conditioned within the DML with a focus on validating predicted impacts. As above the MMO urges that







- conditions are reflective of the five tests, and that the MMO reserves comment on these matters to a future deadline.
- 1.8.9 To ensure an efficient examination the MMO would welcome involvement in the production of any proposed DML conditions at the earliest opportunity.
- 1.8.10 The MMO understands that there are tensions between mitigation for ornithological matters and matters pertaining to Seascape and Landscape Visual Impact Assessment (SLVIA). The MMO defer further comment on this matter to NE.

2. MMO Other Comments

2.1 New Cable Protection

- 2.1.1 The MMO notes the Applicant has not advised on if they are going to include new cable protection as part of the O&M activities.
- 2.1.2 The MMO notes the Applicant states that a position statement was being produced in relation to New Cable or Scour Protection. The MMO did work on a potential position statement however to maintain its ability to review each application on a case by case basis and taking account of the specific circumstances of each case, the MMO believes providing a formal position statement would not be appropriate.
- 2.1.3 The MMO notes NE has provided a position statement on this matter and the MMO may take the information within this document into account when reviewing the potential to include new cable protection in any long term consent.
- 2.1.4 However, to assist the Applicant in deciding their position the MMO has provided some general principles that will be used in assessing new cable protection below.
- 2.1.5 Any cable or scour protection which is proposed in areas where no such protection was employed during the construction phase of the wind farm is considered new cable or scour protection, and therefore cannot be properly considered to be a maintenance activity.
- 2.1.6 Any new cable or scour protection must generally be consented through a separate marine licence and not through the O&M plan.
- 2.1.7 In addition to this any separate marine licence for O&M should generally not include new cable or scour protection unless it is for maintenance of protection employed during the construction phase and must generally be consented through a separate marine licence.
- 2.1.8 For marine licence cable and scour protection applications that are not in marine protected areas in respect of benthic habitat features, the MMO may consider it appropriate to offer a long term licence of a maximum of 10 years.
- 2.1.9 For marine licence cable and scour protection applications that are in marine protected areas in respect of benthic habitat features, the MMO will generally require a separate marine licence to be in place for each and every individual campaign of scour and cable protection employed throughout the lifetime of the project.
- 2.1.10 The MMO believes the Applicant should advise the final position on this matter at the earliest opportunity to enable comments by all interested parties.

2.2 East Anglia One North (EA1N) and East Anglia 2 (EA2) Cooperation/Coordination

2.2.1 The MMO notes NE has requested that there is a condition added to the DML to ensure there is no concurrent piling between EA1N and EA2. The Applicant has responded and advised that they believe this will be managed using the SNS SAC SIP. The MMO believes the appropriate place to manage the in-combination impacts is the SNS SAC SIP.







2.2.2 However, the MMO does agree with NE that there may be concerns in the review and potential overlap of some of the pre-construction documents. The MMO believes that should EA1N and EA2 be constructing at the same time some of the pre-construction documents may be linked, therefore the MMO requests the following conditions are added to Schedule 13 and Schedule 14 to ensure the overlap is fully covered:

2.2.3 Schedule 13

Coordination with East Anglia One North Offshore Wind Farm

- 18.—(1) Prior to submission of each of the UXO-clearance and pre-construction plans and documentation required to be submitted under condition 16(1) and 17(1) above the undertaker must provide a copy of the relevant plans and documentation to the undertaker of the offshore element of the East Anglia One North Offshore Wind Farm to enable that undertaker to provide any comments on the plans and documentation.
- (2) The undertaker must participate in liaison meetings with the undertaker of the offshore element of the East Anglia One North Offshore Wind Farm as requested from time to time by the MMO in writing in advance, which meeting will be chaired by the MMO and may consider such matters as are determined by the MMO relating to the efficient operation of the offshore element of the authorised project and the offshore element of the East Anglia One North Offshore Wind Farm.

2.2.4 Schedule 14

Coordination with East Anglia One North Offshore Wind Farm

- 18.—(1) Prior to submission of each of the UXO-clearance and pre-construction plans and documentation required to be submitted under condition 12(1) and 13(1) above the undertaker must provide a copy of the relevant plans and documentation to the undertaker of the offshore element of the East Anglia One North Offshore Wind Farm to enable that undertaker to provide any comments on the plans and documentation.
- (2) The undertaker must participate in liaison meetings with the undertaker of the offshore element of the East Anglia One North Offshore Wind Farm as requested from time to time by the MMO in writing in advance, which meeting will be chaired by the MMO and may consider such matters as are determined by the MMO relating to the efficient operation of the offshore element of the authorised project and the offshore element of the East Anglia One North Offshore Wind Farm.

2.3 Completion of Construction

- 2.3.1 The MMO notes NE and the Applicant have discussed including something more specific within the DML to ensure it is clear when the construction phase ends and the O&M phase begins. The Applicant believes that the notification requirement are appropriate.
- 2.3.2 The MMO believes that it would be helpful for a 'close-out' or 'as-built' report to be submitted at the end of construction. This will assist in clarity to all parties on what the final parameters were at the end of construction.
- 2.3.3 In addition to this, a report will ensure that cable protection to be used for maintenance can be set out at the start of the O&M phase ensuring the consenting parameters aren't exceeded. This will also assist at the decommissioning stage to know the exact amount of cable protection placed during the construction phase linking with the O&M plan. The MMO wishes to highlight to the ExA, at this stage, there are current ongoing internal discussions within the MMO about this issue. The MMO welcomes discussions with NE and the Applicant on this matter and will provide an update at future deadlines.







2.4 Article 36 - Certified Documents

2.4.1 The MMO wishes to propose an update to the dDCO. The MMO believes Article 36 should be amended to include the following condition and a new Schedule 16 should be included in the dDCO as per the Schedule 18 of the Norfolk Boreas Offshore Wind Farm dDCO attached in Appendix 2. The MMO believes this will ensure all parties know the consented version of the certified document and prevent confusion at the pre-construction stage.

Certification of plans etc.

- 37.—(1) The undertaker must, as soon as practicable after the making of this Order, submit to the Secretary of State copies of the documents listed in Schedule 16 (Documents to be certified) for certification that they are true copies of the documents referred to in this Order.
- (2) A plan or document so certified is admissible in any proceedings as evidence of the contents of the document of which it is a copy.
- (3) Where a plan or document certified under paragraph (1)—
- (a) refers to a provision of this Order (including any specified requirement) when it was in draft form: and
- (b) identifies that provision by a number, or combination of numbers and letters, which is different from the number, or combination of numbers and letters by which the corresponding provision of this Order is identified in the Order as made

the reference in the plan or document concerned must be construed for the purposes of this Order as referring to the provision (if any) corresponding to that provision in the Order as made.



3. Comments on responses to the ExAs Written Questions (ExQ1)

ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
1.0 Over	arching, general and cross	-topic questions	•	1	
1.0.1	The Applicant (Other Interested Parties (IPs)) with an interest in design are requested to comment at Deadline 2.)	Good Design Section 4.5 of the Overarching National Policy Statement (NPS) for Energy (EN-1) emphasises the importance placed on ensuring good design in the development of infrastructure projects. This matter is cross-cutting in relation to multiple topics identified within the Initial Assessment of Principal Issues. Whilst the NPS is the primary source of policy under which the applications will be considered, policy within the National Planning Policy Framework (NPPF) advocates for good design as do the 'Design Principles for National Infrastructure', developed by the National Infrastructure Commission. Could the Applicant outline their approach to good	N/A	Please see Applicant's response in ExA.WQ-1.D1.V1_02 'Applicants' Responses to Examining Authority's Written Questions Volume 2 – 1.0 Overarching, general and cross-topic questions'	The MMO reviewed the Applicant's response to this question and did not include it in this response due to its length. The MMO expects to be included in discussions regarding the design plan as this is unlikely to be finalised prior to conclusion of the examination. The MMO notes the Applicant's commitment to planning a design which minimised environmental impact.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		design in respect of the following key elements, focusing on how each element reflects the principles of development responding to setting/place and people: a) offshore wind turbine generators and associated platforms; b) onshore substations and grid connections; c) the onshore transmission cable, including any above ground ducting/chambers.			
1.0.3	The Applicant, East Suffolk Council (ESC), Suffolk County Council (SCC), Historic England, Natural England, AONB Board, Parish Councils, SASES, SEAS, SEAS, SoS	Design Mitigation: Adverse effects Are the measures set out in section 6.7 of the Environmental Statements (ES) (Onshore Schedule of Mitigation) sufficient to mitigate any adverse effects from the proposed substations and National Grid substation and enable the projects to satisfy the requirements of EN-1, the	N/A	Please see Applicant's response in ExA.WQ-1.D1.V1_02 'Applicants' Responses to Examining Authority's Written Questions Volume 2 – 1.0 Overarching, general and cross-topic questions'	The response has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		NPPF and local policies for visual amenity, landscape, public rights of way and heritage matters? a) Provide reasons for your answer. b) If not, what further measures are required?			
1.0.8	The Applicant, ESC, SCC, Historic England, Natural England, AONB Board, Parish Councils, SASES, SEAS, SEAS, SOS	Design Principles a) In the context of EN-1 paragraph 4.5.5, explain how the design of the EA1N and EA2 projects meet the National Infrastructure Commission's Design Principles for National Infrastructure (February 2020) in respect of Climate, Places, People and Value, both offshore and onshore and in all three phases of construction, operation and decommissioning. b) Comment on the desirability of implementing the following measures to	N/A	Please see Applicant's response in ExA.WQ-1.D1.V1_02 'Applicants' Responses to Examining Authority's Written Questions Volume 2 – 1.0 Overarching, general and cross-topic questions'	The MMO notes the Applicants response and agrees with the reference to Offshore Aspects of the project. The MMO considers that implementing an outline of the proposed design process would be useful and could compliment the suite of pre-construction documents required by the Deemed Marine Licence (DML). The MMO should be consulted on this matter.







	Response at Deadline 1	Response:
ensure that good quality sustainable design and integration of the proposed substations and National Grid substation projects into the landscape is achieved in the detailed design, construction and operation of the projects. How might they be secured? Are any further measures appropriate? I - IV		

1.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))

The MMO has reviewed and commented on the following sections:

- Offshore ornithology
- Marine mammals
- Benthic ecology (subtidal/intertidal)

Offshore ornithology

1.2.10	Natural England	Outer Thames Estuary	N/A	Natural England	The MMO notes the
		SPA: Operation and		a) Partly satisfied, but as the	response from Natural
		Maintenance Vessel Traffic		location of the O&M port is not	England and refer the
		The Applicant has responded		known at this stage, Natural	ExA to comments
		(Point 2, Table 35 of [AS-		England recommends that the	regarding ornithology
		036]) to Natural England's		Applicant commits to mitigating	above, The MMO
		advice in relation to red-		impacts from vessels in future	requests that they be
		throated diver impacts arising		by commitment to best practice	consulted upon all
		from offshore site			







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		maintenance vessel traffic during the operation phase. a) Please could Natural England comment on its satisfaction with the Applicant's response? b) Specifically, to what extent does Natural England consider that the 'best-practice protocol for minimising disturbance to redthroated divers' referred to by the Applicant would assist and is it adequately secured by the DML conditions pertaining to a project environmental management plan? c) Is Natural England satisfied that adequate safeguards against red-throated diver disturbance are secured in that event that helicopters are used for maintenance activities?		measures. Please see NE Deadline 1 Appendix A1b. b) Natural England notes that within both DMLs a condition requiring the production of an Environmental Management Plan is included. Within this condition it is secured that they will need to provide procedures to minimise disturbance to red- throated diver. We are content that this ensures the mitigation can be secured. c) We are not aware of any evidence which recommends a minimum safe flight height for helicopters to avoid disturbance of divers. We would wish to see a minimum flight height restriction (based on best available evidence) to apply anywhere within the OTE SPA. This needs further consideration and securing within the DML.	matters conditioned within the DML.





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
1.2.11	The Applicant	Red-Throated Diver: Project Environmental Management Plan (PEMP) Responding to Natural England's [RR-059], the Applicant states (Table 35 of [AS-036]) that the PEMP should be produced post- consent, once details of the project are confirmed. Accordingly, no draft of the document, which is secured by DML conditions, has been submitted. a) Can the Applicant explain why the DML conditions relating to the PEMP refer only to the purpose of minimising disturbance to red-throated divers, whereas the Schedule of Mitigation [APP-574] in relation to operation effects (Mitigation Reference 6.4) states a wider purpose of reducing risk of physical injury or disturbance to offshore ornithology?	N/A	The Applicant a) Regarding the reference within the <i>Offshore Schedule of Mitigation</i> (APP-574) to risk of physical injury from vessels, this was an error. Birds would be disturbed by vessel noise and vessel presence. It is highly unlikely that a vessel would collide with individual birds which is reflected in the fact that this issue has not been raised by stakeholders. For clarity, the mitigation measures described within the best practice protocol for redthroated diver will mitigate potential impacts on any seabird species in the vicinity of Project vessels or Project vessel transit routes however, because the PEMP will specifically address management of potential impacts on red-throated diver which is known to be particularly sensitive to disturbance from vessels, the focus within the PEMP is on that species.	The MMO notes that the Applicant does not intend to submit a draft PEMP prior to determination. Whilst the MMO would require final sign off of the document in consultation with Natural England, the MMO urges the Applicant to resolve any issue prior to the conclusion of examination so that in the event of a positive determination, the post consent process can progress smoothly.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		b) Given the strong rationale for as much certainty as possible in respect of measures to minimise disturbance to red-throated divers, does the Applicant consider that it would be possible for a document akin to a 'Draft PEMP' to be produced at this stage, to be a certified document within the DCO and with which the eventual PEMP must accord in respect of red-throated diver mitigation?		b) The Applicants do not consider it necessary to produce a draft PEMP prior to consent. The Applicants consider that the requirement for approval of the final PEMP by the MMO in consultation with Natural England provides the necessary assurance that potential impacts on red-throated diver will be managed accordingly and that management will be based on the most up to date scientific information at the time together with the relevant Project information such as the Operations and Management port and vessel transit routes.	
1.2.12	The Applicant	Assessment of Displacement of Red- Throated Divers by Offshore Cable Laying With reference to section 4.3.1.2.2 of [APP-043], the Applicant explains why the 10% displacement mortality for red-throated diver is considered to be highly precautionary and improbable, and a 1% rate is	N/A	The Applicant The Applicants made reference to a review of displacement studies for red- throated diver presented for the Norfolk Vanguard project4, which considered the available evidence and concluded that a 1% mortality rate was appropriately precautionary for this potential impact.	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		stated as applied to the assessment of integrity of the population which is a feature of Outer Thames Estuary SPA. • Could the Applicant please explain, with reference to supporting information, why a 1% rate was chosen.			
1.2.13	Natural England	Outer Thames Estuary SPA: Seasonal Restriction on Cable Laying a) Please could Natural England respond to the Applicant's comments [AS-036] with regard to Point 5 of the Natural England relevant representation (RR) [RR-059], on the question of whether a seasonal restriction on cable-laying activity is necessary to minimise effects on red-throated diver? b) Could Natural England please clarify whether its comment at Point 5 that 'we are already	N/A	Natural England a) Please see NE Deadline 1 Appendices A1b, A4 and A5 b) Yes, our response is referring to in-combination displacement due to already consented and operational projects. Please see NE Deadline 1 Appendix A4.	As outlined above, should the seasonal restriction on cable laying activity be deemed appropriate mitigation the MMO expects to see this reflected in the DML. The MMO defers further comment until Deadline 4, once a revised DML has been submitted by the Applicant







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		unable to rule out AEOI in-combination from displacement as a result of disturbance within the SPA' is referring to incombination displacement due to already consented and operational projects, notwithstanding the East Anglia ONE North and TWO projects?			
1.2.16	Natural England	Avoidance Rates for Kittiwake and Gannet Natural England acknowledges that higher avoidance rates for gannet and kittiwake have been recommended by Bowgen & Cook (2018) and notes in [RR-059] that it is currently considering its response to those recommendations. • Can Natural England provide an update on its response to these recommendations; is it likely to be forthcoming within the timescale of this Examination?	N/A	Natural England and the Statutory Nature Conservation Bodies (SNCBs) are currently reviewing the evidence on avoidance rates presented in Bowgen & Cook (2018), and its applicability to SNCB advice on CRM. As part of this work, Natural England have recently commissioned the BTO to undertake work, including combining Avoidance rates from the 2014 review with the Avoidance Rates from Bowgen & Cook (2018). Until that work is complete, Natural England's position remains that the	This comment has been noted by the MMO. The MMO looks forward to the output of this review.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				appropriate Avoidance Rates to use with Band (2012) model are those set out in the SNCB guidance note JNCC et al. (2014), i.e. 98.9% for gannet and kittiwake with the 'Basic' Band model (i.e. Options 1 and 2). The work by the BTO required to inform the revision of the SNCB advice will be completed by March 2021 at the latest, and may be forthcoming within the timescale of the Examination, but unlikely.	
1.2.17	The Applicant	Flamborough and Filey Coast SPA: Effects on Breeding Seabird Assemblage Alone and In- Combination a) Please could the Applicant indicate when its assessment of effects on the seabird assemblage feature of the Flamborough and Filey Coast SPA (as referred to in Table 61 of [AS-036]) will be submitted to the Examination, noting	N/A	The Applicant The assessment of potential effects on the seabird assemblage of the Flamborough and Filey Coast SPA will be submitted at Deadline 2. If time permits, these will be provided to Natural England and the RSPB for review prior to submission.	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		that this should be made available as soon as possible? b) In doing so, please could the Applicant set out the extent to which the material has been seen and/or agreed by RSPB and Natural England.			
1.2.18	Natural England and the Applicant	Cumulative and In- Combination Assessments for Offshore Ornithology The Applicant has responded to Natural England's advice about cumulative and in- combination assessments at Sections 3 and 4 of Table 35 of [AS-036], albeit that its responses on many aspects of this topic were deferred until after the decision deadline for the Norfolk Vanguard and Hornsea Three projects. a) In providing its updated information to inform appropriate assessment at Deadlines 1 and 3 (as confirmed in [AS-061]),	N/A	The Applicant The Applicants have responded in full to these aspects of Natural England's and RSPB's Relevant Representations (RR059 and RR-067) within the Offshore Ornithology Cumulative and In Combination Collision Risk Assessment Update (document reference ExA.AS7.D1.V1) submitted at Deadline 1, and will also do so in the Deadline 3 submission (Spatial modelling of redthroated divers (RTD) in the Outer Thames Estuary SPA). Natural England	The MMO has reviewed the Offshore Ornithology Cumulative and In-Combination Collision Risk Assessment Update (document reference ExA.AS7.D1.V1) and refers to comment 1.8.2 made earlier in the document. The MMO will review further submissions at future deadlines.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		please could the Applicant respond in full to those aspects of Natural England's advice [RR-059] and RSPB's representation [RR-067] to which it has not yet responded. b) Where the Applicant has provided a substantive response to Natural England's points in [AS-036], please could Natural England comment on its satisfaction with those responses.		NE confirms we will provide further advice once further updates are provided. However, further NE advice is provided at Deadline A1b which responds to [AS-036].	
1.2.19	Natural England	Cumulative and In- Combination Assessment for Offshore Ornithology: Applicant's Precaution Note The Applicant submitted an Offshore Ornithology Precaution Note as Appendix 4 to its Rule 9 submissions [AS-041]. • Please could Natural England provide its comments on the content of this note as	N/A	The Applicant Notwithstanding the Applicants' position that they disagree with Natural England on a number of matters regarding the interpretation of precaution, the Applicants do not intend to comment further on precaution within offshore ornithology assessments. The Applicants' position remains as set out within Applicant's Comments on Relevant Representations - Appendix 4: Offshore Ornithology	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		it relates to the proposed development?		Precaution Note (AS-041). The Applicants and Natural England have agreed to adopt the cumulative and incombination numbers from the recent Norfolk Boreas examination as a 'common currency' going forward.	
1.2.20	The Applicant and Natural England	Ornithological Population Effects of Predicted Mortality Rates: Monitoring Studies • Are the Applicant or Natural England aware of any monitoring studies having been undertaken on the observed ornithological population effects of predicted mortality rates from offshore wind farm impacts (displacement and/or collision), and the outcomes of these studies? If so, please provide details.	N/A	The Applicant There have been numerous studies of mortality effects on seabird populations, many of which have been cited throughout the Applicants' assessment. The effects of additional sources of mortality on populations are not limited to windfarm studies, since it is the consequence of the mortality which is of interest rather than the cause. Population modelling, as presented by the Applicants in the assessment (e.g. APP-043) provides predictions of the population consequence of a given range of mortalities. What is considered of greater relevance to the current assessment is the actual magnitude of mortality due to	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
				either collisions or	
				displacement. The most	
				relevant recent study of	
				collision mortality rates was	
				conducted under the Offshore	
				Renewables Joint Industry	
				Programme (ORJIP) scheme	
				by Skov et al. (2018). This	
				used a combination of radar,	
				cameras and observers to	
				record flight activity and	
				collisions at an operational	
				windfarm (Thanet). This study,	
				although limited to one windfarm, presented evidence	
				that current collision	
				predictions are almost certainly	
				precautionary (i.e. over-	
				estimated) due to the use of a	
				combination of precautionary	
				input parameter values for the	
				collision risk model. This was	
				subsequently confirmed by a	
				separate analysis of the same	
				data by Bowgen and Cook	
				(2018) who reached similar	
				conclusions. Both of these	
				studies have already been	
				referred to in Chapter 12	
				Offshore Ornithology (APP-	
				060) and the Habitat	
				Regulations Assessment -	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				Information to Support Appropriate Assessment Report (APP043). Similarly, studies of displacement have been referred to in the submitted assessments and were summarised in the literature reviews of displacement of auks (razorbill and guillemot) and red- throated diver submitted for the Norfolk Vanguard assessment5. These reviews were undertaken in 2019 and are considered to remain comprehensive and up to date. These reviews indicate that precautionary rates of displacement and consequent mortality for auks are 50% and 1% respectively, and for red- throated divers 90% and 1% respectively.	
				Natural England	
				i) Displacement Natural England is not aware of any studies providing evidence of mortality effects as a result of displacement. ii) Collision	



ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				For impacts on collision, there have been very few empirical studies looking at collisions at offshore windfarms. The only UK published study Natural England is aware of is the ORJIP (Offshore Wind Joint Industries Project) at Thanet which recorded a total of 6 collisions. However this study covered a small number of turbines on a single windfarm, and therefore not of a scale that allows population effects of predicted mortality rates to be fully considered. For more information please see NE Deadline 1 response Appendix A1b.	
1.2.21	Natural England	Cumulative and In- Combination Assessment for Offshore Ornithology: Update Following Recent Decisions of the Secretary of State (SoS) The ExAs note Natural England's intention [AS-063] to submit further advice at Deadline 1 about the Applicants' information to	N/A	Natural England Our position on the HP3 and Norfolk Vanguard decisions hasn't changed since our Norfolk Boreas responses which we have been included at NE Deadline 1 response Appendix A6, A7 and A8.	This comment has been noted by the MMO. The MMO has reviewed these appendices and have no comment to make at this time other than to acknowledge Natural England's position has not changed.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		support appropriate assessment in light of the recent SoS decisions and in response to the questions raised in Procedural Decision 18(a). • The ExAs welcome additional clarity on Natural England's position in these respects and requests that its Deadline 1 submissions are as full and reasoned as possible.			
1.2.22	Natural England	Cumulative and In- Combination Assessment: Natural England Submissions to the Norfolk Boreas Examination Natural England's [AS-063] suggests that its submissions to Deadline 14 of the Norfolk Boreas examination are of relevance to the ExA's consideration of the EA1N and EA2 applications. • Please could Natural England submit a copy of the relevant parts of	N/A	Natural England Please see Norfolk Boreas responses which we have included at NE Deadline 1 response Appendix A6, A7 and A8.	This comment has been noted by the MMO. The MMO has reviewed these appendices and have no comment to make at this time other than to acknowledge Natural England's position has not changed.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
4.2.22	The Applicant and Natural	that response (and any other submissions to the Norfolk Boreas examination that it considers to be of relevance to these projects) into the examinations for EA1N and EA2?	NI/A	The Applicant	The MMO restor Netural
1.2.23	The Applicant and Natural England	Post-Construction Monitoring for Offshore Ornithology The ExA notes both the concerns of Natural England at section 5 of [RR-059] with respect to post-construction monitoring provisions and comments from the RSPB about the need for a more detailed post-construction monitoring plan at this stage. a) Please could the Applicant respond to the comments of Natural England on this matter. What scope is there to include the areas suggested by Natural England for post-construction monitoring within the	N/A	The Applicants will update the Offshore In-Principle Monitoring Plan (IPMP) (APP-590) to include a requirement for RTD monitoring. The revised IPMP will be re-submitted to the Examination at Deadline 3. If time allows, consultation with Natural England will be undertaken in the lead-up to Deadline 3 (15 December 2020) to understand Natural England's desired approach to monitoring of RTD. The Applicants intend to update Conditions 20 and 22 of the generation DML and Conditions 16 and 18 of the transmission DMLs to make provision for pre-construction and post-construction	The MMO notes Natural England's comments regarding DML conditions for post construction monitoring and refers to comments made above.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		existing provisions of the dDCO/DMLs and/or Offshore In-Principle Monitoring Plan? b) Could Natural England please respond to the Applicant's clarification that the strategic monitoring to which it refers in section 1.6.7.2 of [APP-590] would not be secured within this DCO? c) On the basis of this clarification, is Natural England satisfied that sufficient post-construction monitoring provisions for offshore ornithology are secured within the dDCO, DMLs and Offshore In-Principle Monitoring Plan? If not, what changes would it advise?		ornithological monitoring which will be included in the updated <i>Draft DCO</i> (APP-023) submitted into the Examination at Deadline 3. Natural England b) Natural England disagrees with the assertion made in Section 1.6.7.2 of [APP-590] that the findings of the EIA suggest no monitoring is required. We advise that the requirements for project specific monitoring are reviewed following a robust and thorough HRA process in particular for the OTE SPA. c) Natural England is not satisfied that sufficient monitoring has been secured in the DMLs and there are no conditions within the DML to secure a requirement for ornithological monitoring. Please see Deadline 1 response Appendix A1b highlighting residual impacts where monitoring will be required.	





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
Marine	_ Mammals				
1.2.26	Marine Management Organisation (MMO) and the Applicant	Inclusion of UXO Clearance Activities within DMLs The ExA notes the MMO's [RR-052] position that UXO (Unexploded Ordnance) clearance activities should not be included within the DMLs and rather should be determined via separate marine licence applications after the DCO consenting process and prior to construction. In Table 29 of [AS-036] the Applicant has set out the reasons why it has taken the approach it has taken and seeks to demonstrate how the DMLs adequately control UXO clearance activities. The submitted early draft SoCG [AS-051] states that discussion between the Applicant and the MMO on this matter is ongoing. a) Could the MMO please respond with reasons to the position set out	a). The MMO preference is for a separate marine licence to control UXO detonation activities, as this may allow for a more up to date assessment closer to the time of proposed UXO activities, including an assessment of other noisy activities in the area, which may not be known at the time of DCO consent. -If the UXO detonations are to be controlled via the DML, the condition should include a requirement that the relevant documents must be submitted to the MMO for approval in consultation with the relevant Statutory	The Applicant c) As far as the Applicants are aware, no DMLs to date include UXO clearance. With respect to the Projects, UXO clearance has however been assessed in the ES (using a worst case scenario formulated by considering experience from East Anglia ONE) in order to justify the inclusion of such activities within the DMLs. The UXO clearance activities are also appropriately controlled by the conditions of the DMLs (which are based on the conditions found within other UXO marine licences). d) An updated SoCG with the MMO has been submitted at Deadline 1 (document reference ExA.SoCG-6.D1.V2). As noted in paragraphs 14 to 18 of the SoCG, engagement on UXO clearance has been undertaken and issues have not yet been fully resolved. The Applicants understand that	The MMO is in discussions with the Applicant through the SoCG and will continue these throughout Examination aiming to come to a final position by the close of Examination.





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		by the Applicant, specifically that: - UXO clearance activities are adequately assessed in the submitted ES; - the draft DML conditions provide adequately for post-consent approval by the MMO of mitigation for UXO clearance activities via the method statement for UXO clearance, the Marine Mammal Mitigation Protocol and the Site Integrity Plan; - to request that a separate marine licence application (or applications) is made would be contrary to one of the intended purposes of the DCO regime, to streamline multiple	Nature Conservation Body no later than 6 months prior to the start of planned UXO activities unless otherwise agreed with the MMO. The MMO is keen that the condition ensures that these documents are submitted in a controlled way so as not to overwhelm the approval process. The MMO acknowledges that requesting a separate marine licence application represents an additional consenting process. There are however other consented OWF DCOs which are required to submit separate marine licence applications, such	representation submission into the examination at Deadline 1 will reflect the progress made on this matter.	





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		consenting processes; - a European Protected Species licence for any UXO campaign is capable of being applied for separately from the marine licensing of such activity, in an analogous way to the approach for piling activity authorised by DMLs; and, - in the event that UXO clearance activities are required beyond the scope of what has been assessed in the ES and applied for via the DMLs, then a separate marine licence can be applied for, rather than needing to vary the DMLs?	as for Operational Maintenance activities. b). Please see Appendix 1 of this response which includes Hornsea Project Two UXO clearance marine licence conditions. d). The MMO submitted their response on this matter to the Applicant on 8 September 2020.		







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		b) Please could the MMO provide a copy of the marine licence conditions for UXO clearance in its cited example of the Hornsea 2 project? c) Can the Applicant please provide any examples of other consented offshore wind projects which include UXO clearance works within the licensed marine activities covered by their DMLs? Where examples exist, please provide the text of deemed marine licence conditions dealing with UXO clearance activities. d) Please could the Applicant and MMO ensure that the SoCG requested for Deadline 1 provides an update on this matter.			
1.2.28	The Applicant, Natural England, Marine	Disturbance of Harbour Porpoise from UXO	c). The MMO defers comment to Natural England on this	a) No comment b) No comment	The MMO defers to NE in matters of HRA but has reviewed the HRA





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
	Management Organisation, The Wildlife Trusts	Detonation and Piling: 20% Threshold Following Natural England's [RR-059], the Applicant notes in [AS-036] that its Information to Support Appropriate Assessment Report [APP-043] does not reflect the updated Conservation Objectives for the Southern North Sea SAC insofar as they state that disturbance of harbour porpoise will not exceed '20% of the relevant area of the site in any given day'. The Applicant accepts that two events of either UXO clearance or piling (or a combination of both) in a single day would exceed the 20% limit for the winter area only, with no exceedance for the summer area. a) Please could the Applicant update the relevant sections of its Information to Support Appropriate Assessment Report [APP-043] (for	matter but reiterate that appropriate conditions must be placed within the DML for the management of this activity in the event that UXO is included within the DML. d). The MMO are content that the Statement of Common Ground (SoCG) reflects the discussion regarding this issue. The MMO understands that the applicant intends to submit the contemporary SoCG at Deadline 1.	c) Please refer to NE Deadline 1 Appendix B1b d) No further comment The Wildlife Trust TWT agrees with Natural England's suggestion in their relevant representation [RR- 059] that piling activities and UXO detonations should be limited to 1 on any given day, to ensure that 20% threshold of the Southern North Sea	Addendum REP01 and provided comments above.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
		example, by submission of an Addendum to that Report) to reflect the current Conservation Objectives for the Southern North Sea SAC. This should include the revised findings in respect of the effects on site integrity of more than one UXO clearance event, piling event or combination of both in any 24 hour period. b) Could the Applicant clarify whether, in ligh of the above updates, still considers there is sound basis for the In Principle Site Integrity Plan provisions at section 6.1, including that potentially more than one UXO detonation, piling ever or combination of both could occur in any 24 hour period? c) Do Natural England, the MMO, The Wildlife	t it a -	objectives and the outcomes of the updated assessment within the <i>HRA Addendum</i> submitted at Deadline 1 (document reference ExA.AS-19.D1.V1). The Projects' commitments have been updated as shown in the <i>HRA Addendum</i> which has been submitted at Deadline 1 (ExA.AS-19.D1.V1). d) This will be included in the SoCG with Natural England (document reference ExA.SoCG-13.D1.V1), the MMO (document reference ExA.SoCG-6.D1.V2) and The Wildlife Trust (TWT) (document reference ExA.SoCG-28.D1.V1).	Response:







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		Trusts or any other relevant party wish to comment on the Applicant's reasoning in Table 36 of [APP-036] for not limiting UXO detonations and piling events to a total of one in any 24 hour period? d) Could all relevant parties please also ensure that the status of discussions on this issue is covered within the SoCGs requested for Deadline 1.			
Q.1.2.29	The Applicant	Restrictions on Concurrent UXO Detonation and Piling: Points of Clarification Could the Applicant please clarify the following points of detail: a) Please could the Applicant review paragraph 1035 of [APP-043], which states that it has been assumed that UXO clearance could be undertaken in the offshore cable corridor concurrently	N/A	The Applicant a) As outlined above, the Projects' commitments will be clarified in the updated IPSIP and the draft Marine Mammal Mitigation Protocol (MMMP) which are to be submitted at Deadline 3. The revised commitments are set out in the HRA Addendum which has been submitted at Deadline 1 (document reference ExA.AS- 19.D1.V1). The relevant commitment in the context of this question is:	The MMO defers to Natural England for comments on whether the potential effects on the Southern North Sea SAC have been appropriately considered and mitigated. The Applicant is clear that there will be no concurrent piling or UXO clearance between EA1N and EA2 in either season. However, MMO is unsure as to why there







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		with piling in the array area.			is a reference to
		This appears to be		During the winter period there	unmitigated piling and
		inconsistent with the		would be no UXO detonation	UXO, e.g. "only one UXO
		commitments at section 6.1		without mitigation in the	detonation without
		of the In-Principle Site		offshore development area in	mitigation could occur in
		Integrity Plan, which refers to		the same 24 hour period as	a 24-hour period".
		the 'offshore development		any piling without mitigation	Further clarification is
		area', defined as the		in the offshore development	sought from the Applicant
		offshore order limits		area.	as to why this is included
		including both array area			as per above.
		and export cable area, and		There is no requirement for a	
		the provisions of the draft		similar commitment in the	
		Marine Mammal Mitigation		summer period.	
		Protocol (MMMP) [APP-591].			
		Could the Applicant please		There would be no concurrent	
		confirm what it is committing		piling or UXO clearance in	
		to in terms of restrictions		either season within the	
		(spatial and temporal) on		offshore development area for	
		concurrent underwater piling		each Project. There would be	
		and UXO events within the		no concurrent piling or UXO	
		offshore order limits?		clearance between the	
		b) Paragraph 634 of [APP-		Projects in either season.	
		044] states 'the Applicant, if		15.71	
		required, would ensure UXO		b) This commitment which	
		detonation and piling would		applies to the winter period in	
		not occur at the same		the offshore development area	
		time'. Could the Applicant		only has been updated to reflect the revised	
		clarify whether 'if required'			
		refers to piling/UXO		interpretation of the guidance,	
		clearance or mitigation in this statement?		as presented above. In this case, there could either be one	
		iiis statement?		*	
			<u> </u>	detonation or one piling event	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				in one 24 hour period, unless it can be demonstrated that effective mitigation can be provided for either activity (or both). This will be reflected in the updated Site Integrity Plan (SIP) which will cover management of Project-alone as well as in-combination effects.	
1.2.30	Natural England, Marine Management Organisation, The Wildlife Trusts	Restrictions on Concurrent UXO Detonation and Piling: Security The ExA notes the Applicant's points at Table 36 of [AS-036] in response to Natural England's requests for security in the DMLs to limit UXO detonations and piling events to a total of one in any 24 hour period. • Do Natural England, the MMO, The Wildlife Trusts or any other relevant party wish to comment on the Applicant's reasoning in Table 36 of [APP-036] that Site Integrity Plans, agreed post-consent in accordance	The MMO agrees with the Applicant's reasoning that Site Integrity Plans are an appropriate mechanism to manage the matter of piling. As aforementioned the MMO has a preference for UXO detonation to be determined under a separate Marine Licence, but in the event that it is included in the DML, the MMO are content that a SIP is appropriate.	Natural England Please refer to NE Deadline 1 response Appendix B1b. The Wildlife Trust TWT would welcome Natural England's view on this matter.	The MMO disagrees with Natural England and The Wildlife trust but is continuing discussions on this matter. The MMO believes the SIP the appropriate mechanism to manage conflicting noise between UXO and piling.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		with the In-Principle SIP, are an appropriate mechanism to manage this matter? If not, why not?			
1.2.31	The Applicant, Natural England, Marine Management Organisation, The Wildlife Trusts	Concurrent Piling at East Anglia ONE North and East Anglia TWO The In-Principle Site Integrity Plan [APP-594] states at bullet four of section 6.1 that '(t)here would be no concurrent piling or UXO detonation between the proposed East Anglia ONE North and East Anglia TWO projects if both projects are constructed at the same time'. However, it does not appear to limit the overall number of piling or UXO detonation events that could potentially occur within any 24 hour period across the two projects. a) Do Natural England, the MMO, The Wildlife Trusts and the Applicant consider that it should? Please given	a). The MMO advise that noise disturbance within an SAC from a plan/project, individually or in combination, is considered to be significant if it excludes harbour porpoises from more than 20% of the relevant area of the site on any given day, or an average of 10% of the relevant area of the site over a season. The MMO consider that if more than one piling event or UXO detonation exceeds this threshold, then it is reasonable for the In-Principle Site Integrity Plan to limit the overall number	a) Please refer to NE Deadline 1 response Appendix B1b b) Please refer NE Deadline 1 response Appendix B1b and G1b c) No comment from NE The Wildlife Trust TWT has been assured by the Applicant that EA1N and EA2 will not be constructed at the same time but TWT highlights that careful planning/scheduling of underwater noise will be required if one project is undertaking UXO clearance whilst the other is undertaking piling activity. TWT agrees with Natural England's suggestion in their relevant representation [RR-059] that piling activities and UXO detonations should be limited to 1 on any given day across the two projects, to ensure that 20% threshold of	The MMO notes the comments set out and understands discussions are still ongoing between the Interested Parties and the Applicant. The MMO has proposed a condition in this document to be included in the DMLs to ensure there is coordination in the submission of the UXO and Preconstruction documents on each project. The MMO will continue to engage with all parties and provide an update at Deadline 4.





ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		reasons for your position. b) Could Natural England please explain why it considers in [RR-059 that a DML condition would be a more appropriate way to secure the particular mitigation commitments relating to concurrent piling between the East Anglia ONE North an East Anglia TWO projects? c) Whilst noting the Applicant's response Table 45 of [AS-036] could it please response specifically to Natural England's suggestion that a 'Co-operation Plan / Agreement' is required to be secure via DML condition for both projects to manage and mitigate underwater noise from piling and UXO activities in the event	of piling or UXO detonation events that could potentially occur within a 24-hour period across the two projects.	the Southern North Sea SAC is not exceeded. The Applicant a) The IPSIP sets out the process for managing potential effects and lists potential mitigation. The SIP mechanism allows for the review of currently available mitigation techniques as well as consideration of new techniques that may become available during the preconstruction phase. It will also enable changes to the science, changes in guidance and regulatory advice and any changes to the conservation objectives for the SAC to be taken into consideration prior to approval of the SIP and MMMP by the MMO. Additionally, the Applicants have committed to consulting with Natural England (and The Wildlife Trust) through the IPSIP and have proposed a consultation programme within the IPSIP (Table 2.1) that	
		that construction		commences more than 12	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		periods for the two projects overlap?	Deadline 1:	months in advance of the first noisy activity (UXO clearance). Therefore, there is no need to set out limits on UXO detonations in the IPSIP. Any such limits, if required, would be presented in the final SIP using up to date Project design information, science and guidance. b) It is the Applicants' view that the commitments secured in the conditions in the DMLs prevent breaches of the conservative objective noise thresholds both for Project alone and cumulative cases through the approval process of the SIP and the MMMP. The SIP provides a flexible	Response.
				management mechanism as described above. It is the Applicants' view that the commitments already made allow for robust control of this issue by the MMO and that no further conditions are necessary. The Applicants would therefore re-emphasise	







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
				that the approval process of	
				the SIP and MMMP together	
				with the associated DML	
				conditions are the appropriate	
				mechanisms in which to	
				secure the commitments that	
				have been made.	
				c) The Applicants do not	
				consider it appropriate to	
				include a condition within the	
				DMLs to require a co-operation	
				plan or agreement for the	
				Projects to manage and	
				mitigate underwater noise from piling and UXO activities as	
				this will be managed through	
				existing DML conditions. The	
				timing of piling and UXO	
				clearance activities will be	
				notified to the MMO through	
				the construction programme	
				(Condition 17(1)(b) of the	
				Generation DML and Condition	
				13(1)(b) of the Transmission	
				DML) and through the	
				programme of works contained	
				within the method statement	
				for UXO clearance (Condition	
				16(1)(a)(iii) of the Generation	
				DML and Condition 12(1)(a)(iii)	
				of the Transmission DML),	
				respectively and will be	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				managed through the approval process for the SIP (Conditions 16 and 17(2) of the Generation DML and Conditions 12 and 13(2) of the Transmission DML). In approving the plans for the second Project, the MMO will already have the necessary information about the first Project and will be able to approve the SIP for the second Project in light of this information.	
1.2.32	Natural England	Harbour Porpoise of the Southern North Sea SAC: Assessment of Effects- SNCB Advice In their RR [RR-091], The Wildlife Trusts express disagreement with the SNCB's advice in relation to underwater noise management in the Southern North Sea SAC and the approach to assessment of impacts on harbour porpoise populations. • Please could Natural England respond to the concerns raised by The Wildlife Trusts in this	N/A	Natural England The science and evidence used to underpin the SNCB advice on managing noise in harbour porpoise SACs, including why we consider it most appropriate to undertake assessments at the Management Unit scale, can be found in the short document 'JNCC (2020). Background to the advice on noise management within harbour porpoise SACs in England, Wales and Northern Ireland.' JNCC Report No. 653, JNCC, Peterborough, ISSN 0963- 8091, which is available here https://data.jncc.gov.uk/data/2e	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		and an efficient		·	'
		regard, specifically		60a9a0-4366-4971-9327-	
		statements that:		2bc409e09784/JNCC-	
		- The science			
		underpinning the			
		advice on			
		underwater noise			
		management is			
		weak and the			
		proposed			
		approach will be			
		difficult to deliver;			
		and,			
		- A site-based			
		assessment based			
		on an estimate			
		population number			
		for the Southern			
		North Sea SAC is			
		required, rather			
		than an			
		assessment on the			
		North Sea			
4.0.00	National England	Management Unit?	NI/A	Natural England	This common the common
1.2.33	Natural England	Commercial Fishing in	N/A	Natural England	This comment has been
		Cumulative and In-		When assessing the effects of	noted by the MMO.
		Combination Marine		a plan or project it is a	
		Mammal Assessments		requirement of the Habitats Directive that consideration is	
		The Wildlife Trusts [RR-091] make the case that			
				given to whether those effects	
		commercial fishing activities		are likely to be significant	
		should be included in		either individually or in	
		cumulative and in-	1	combination with other plans or	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		combination assessments as opposed to the Applicant's approach of including them as a part of the environmental baseline for the marine mammals assessment. The Wildlife Trusts refer to the Waddenzee judgement and judicial review proceedings in relation to the Dogger Bank SAC. The Applicant's response refers to the approach taken in the draft HRA for the BEIS Review of Consents and by other consented or planned offshore wind farms. • Does Natural England consider that the Applicant's approach of including commercial fishing in the environmental baseline is sound in this case? Please explain the reasoning behind your position.		projects. In seeking to avoid deterioration and to properly assess the likely effects of a plan or project it is appropriate to take account of the prevailing factors acting on the site to the extent that they are capable of influencing the conservation objectives for the site. Where there is ongoing fishing activity on the site, it is appropriate to consider the effects of the plan or project that is the subject of the assessment in the context of those prevailing conditions, of which fishing impact may be one.	
1.2.34	The Applicant	Southern North Sea SAC: Thresholds for the Significance of Disturbance Effects	N/A	The Applicant There are currently no guidance or thresholds to determine the potential	The MMO notes the Applicant's response and defers to Natural England in this matter.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		Thresholds for the significance of disturbance effects in relation to Southern North Sea SAC conservation objectives for harbour porpoise are set out in Section 5.3 of [APP-043]. • Can the Applicant explain how the significance of disturbance effects for grey seal and harbour seal has been determined?		significance of disturbance of grey or harbour seal. Significance was therefore based on the percentage of the relevant reference population or management unit for the area and SAC that could be temporarily disturbed. Following the approach in Chapter 11 Marine Mammals (APP-059), for example, an effect on less than 1% of the reference population is considered to have a negligible effect on the population. Note that the methodology for the assessment of seals was discussed and agreed through the Evidence Plan Process with Natural England, and follows the methodology used on many consented projects including Norfolk Vanguard.	
1.2.35	The Applicant	Marine Mammals: Acoustic Deterrent Devices The Applicant's marine mammal assessment [APP-043] makes reference to the use of acoustic deterrent devices (ADDs) as part of the mitigation to be secured within the final MMMP, and	N/A	The Applicant The assessments on the potential disturbance during proposed mitigation, such as ADD activation, was based on the duration that a device could be activated rather than a specific type of device.	MMO considers that the Applicant's proposals regarding ADD do appear appropriate to inform their MMMP. The MMO adds that It will be important for the MMMP to evidence that the







		the assessment considers the adverse effects of this mitigation. The characteristics of the ADDs on which the assessment has been based appear not to be described in [APP-043] or in the draft MMMP. It is not clear, for example, what types of deterrents have been		The type of ADDs to be deployed would be based on the latest technology and information to ensure adequate and effective mitigation for the species required. Further information will be added to the draft MMMP on	deterrent device (ADD) is able to deter the key species of concern and to the distances required.
		considered, which species / life history stage of a species these deterrents would target, where and how such deterrents would be implemented / fixed, any commitments to their ongoing upkeep, and the anticipated effectiveness of such deterrents (such as avoidance). • Please could the Applicant confirm where this information is provided? If it is not included within the application documents, please provide it.		the effectiveness of ADDs and how they will be deployed. The updated draft MMMP will be submitted to the Examination at Deadline 3.	
		Marine Mammals: In-	b). The MMO	Natural England	The MMO notes the
Ma	anagement Organisation,	Principle Site Integrity Plan - Certainty	understands that the purpose of the IPSIP		responses and at this







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
	Natural England and The Wildlife Trusts	Under the provisions of the dDCO, the future SIP(s) must accord with the principles set out in the In-Principle SIP (IPSIP), which is to be a certified document under Art 36. The submitted IPSIP [APP-594] appears to indicate (for example at Table 2.1) that the document itself would continue to be revised and updated following the grant of DCO consent. a) If the IPSIP is necessary to ensure the avoidance of Adverse Effects on Integrity of the designated features of the Southern North Sea SAC, does the scope for review and change to the IPSIP post-DCO consent provide sufficient certainty that it can be relied upon for its intended purpose in the DCO consenting process?	is to set out the approach to deliver potential mitigation measures for the project. The MMO is of the opinion that the IPSIP should not be revised as it is a set of principles. The SIP, which is expected to include any detailed mitigation measures, must accord with the principles set out in the IPSIP, and so any changed to the IPSIP are required to be reflected here. The MMO will seek further clarification from the Applicant as to any proposed changes in approach as set out in the IPSIP.	a) Yes, Natural England considers that when the SIP is revisited post consent and prior to construction, the HRA will need to be updated. Therefore any changes to existing mitigation methods or new/additional mitigation measures can be implemented prior to construction commencing. b) No comment from NE. The Wildlife Trust As part of the SoCG, TWT have asked for the inclusion of the Final Investment Decision (FID) and Contract for Difference (CfD) across all SIPs prepared by the offshore wind industry [TW-015]. This is to ensure that decisions made at these milestones do not limit the mitigation required to ensure no adverse effect. Monitoring requirements also need to be taken into account in relation to these milestones. The inclusion of FID and CfD milestones in the in-principle SIP is currently under consideration by the Applicant.	time has no further comments.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		b) In [APP-036] the Applicant refers to a statement in Table 2.1 of [APP-594] that '(a)longside the in- principle SIP for UXO clearance an implementation plan and any monitoring requirements will also be drafted for any required measures'. Could the Applicant please expand on this statement? - What would be the function of the implementation plan relative to the IPSIP/SIP? - Is it envisaged that this would be within the scope of the material to be submitted to and approved in writing by the MMO under the relevant DML conditions?		TWT support the principle of a SIP, however it is not possible to agree no adverse effect due to the lack of strategic management and mechanisms for tackling underwater noise on a North Sea level. The Applicant a) The IPSIP will not be updated post consent. The final SIP produced post consent will be based upon the certified IPSIP. An updated IPSIP will be submitted at Deadline 3 with revised wording to clarify this point. b) The text quoted is a typographical error and should read: 'within the final SIP for UXO clearance an implementation plan and details of any monitoring requirements to assess the effectiveness of mitigation measures will be included.' The implementation plan referred to will be part of the final SIP which will be submitted to and approved in writing by the MMO. The final SIP will also detail any	







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
				monitoring required to assess	
				the effectiveness of the	
4.0.07	Noticed England Maring	In Drive sinds Cite Intervity	The MMO deferred	mitigation.	The MANAC been see from the en
1.2.37	Natural England, Marine	In-Principle Site Integrity	The MMO defers to	Natural England	The MMO has no further
	Management Organisation, The Wildlife Trusts and the	Plan – Potential Mitigation Measures	Natural England as to whether the IPSIP	a) NE is satisfied that the draft IPSIP provides sufficient detail	comments at this stage.
	Applicant	The Applicant notes that the	provides sufficient	at this time and will enable the	
	Applicant	In-Principle SIP needs to	detail on potential	consideration of advances in	
		retain a level of flexibility until	mitigation measures.	mitigation methods and	
		the extent and nature of	The MMO expects	technology between consent	
		mitigation becomes clear, and	any detailed	and when the review of the SIP	
		that finalised SIPs must,	mitigation measures	is undertaken. However, we	
		under the conditions of the	to be included in any	maintain our position with	
		DMLs, be approved by the	post consent SIP	regards to securing essential	
		MMO prior to construction.	and Marine Mammal	mitigation to ensure no	
			Mitigation Protocol	adverse effect on integrity.	
		a) In this context, do the	(MMMP).	Please see NE Deadline 1	
		MMO, Natural England		response Appendix B1b.	
		and The Wildlife Trusts		b) No comment from NE	
		consider that the draft		c) No comment from NE	
		In-Principle Site Integrity Plan provides		 The Wildlife Trust	
		sufficient detail on		a) It is recognised that the In-	
		potential mitigation		principle SIP needs some level	
		measures?		of flexibility prior to consent,	
		b) If not, what additional		however it would be helpful for	
		information should be		the In-principle SIP to provide	
		included to provide		more detail on the potential	
		sufficient detail?		effectiveness of the mitigation	
		c) How does the		measures mentioned. TWT	
		Applicant respond to		welcomes their inclusion as a	
		The Wildlife Trusts'		consultee on the Draft MMMP	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		request for underwater noise modelling at this stage to demonstrate the degree of noise reduction which could be achieved through mitigation?		and the In-principle SIP, and we welcome the opportunity to work with the applicant to discuss the implementation of mitigation and monitoring further. TWT still have some concerns on the industry's approach to the in-combination mitigation and emphasise that a regulatory mechanism and monitoring programme will be essential to increase our confidence [See Question 1.2.46. for more detail]. b) As part of the CoCG, TWT have asked for the inclusion of the Final Investment Decision (FID) and Contract for Difference (CfD) across all SIPs prepared by the offshore wind industry [TW-015]. This is to ensure that decisions made at these milestones do not limit the mitigation required to ensure no adverse effect. Monitoring requirements also need to be taken into account in relation to these milestones. The inclusion of FID and CfD milestones in the in-principle SIP is currently under consideration by the Applicant.	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				The Applicant c) The Applicants do not consider it appropriate to undertake noise modelling at this stage. Modelling undertaken now would not be based upon the final design and would therefore not reflect the potential impacts of the final design. Mitigation measures (if required) proposed within the SIP will consider: • The SNS SAC management measures available at the time; • The final Project design and mitigation available; and • The design and programme of other projects to understand the actual in-combination scenario. The final mitigation measures would be agreed and secured in the period between consent and the commencement of	
				UXO clearance or piling, following an updated assessment of the potential impacts taking into account the above points.	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
1.2.40	The Applicant	Site Integrity Plans: Point of Clarification The dDCO [APP-023] appears to provide for the production of separate Site Integrity Plans for UXO Clearance and piling activities. • Can the Applicant clarify what is the maximum number of Site Integrity Plans in relation to the Southem North Sea SAC that may be produced for a single project?'	N//A	The Applicant The draft DCO (APP-023) provides for two SIPs, one for UXO clearance and one for piling. These are secured separately in the Generation and Transmission DMLs but in practice a single SIP, prepared to meet the requirements of both DMLs, would be produced for each activity	The MMO notes the Generation and Transmission Assets construction may not take place at the same time. If there is only one SIP per activity this may require multiple revisions and consultation on each revision. The MMO would like to highlight concerns of the potential delay in proceeding with one document for both the Transmission and Generation Assets. For example, if the Transmission Assets begins construction first. The SIP will be submitted 6 months prior to the commencement of the Transmission Assets activity. If there are issues with information in the Generation Assets section this would mean the document could not be discharged until all the issues with the







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
					Generation Assets had been resolved. Leading to potential delays to the Transmission commencement date if these weren't resolved in the 6 months.
					The MMO believes 6 months allows enough time to resolve issues however would like the Applicant to acknowledge the risk of this approach.
1.2.41	The Applicant and The Wildlife Trusts	SIP and MMMP - Post-Consent Approvals The Applicant states in [AS-036] that it has agreed through the SoCG process that it will consult The Wildlife Trusts in respect of the Site Integrity Plans and Marine Mammal Mitigation Protocols for Unexploded Ordnance (UXO) clearance and piling. A SoCG between the Applicant and The Wildlife Trusts has not yet been submitted to this Examination.	N/A	The Applicant b) The Applicants can confirm that TWT will be consulted in respect of the SIPs and MMMP and that this is included in the draft SoCG with TWT submitted at Deadline 1 (document reference ExA.SoCG-28.D1.V1). As agreed with TWT, this commitment will be reflected in the updated IPSIP and draft MMMP which will be submitted at Deadline 3. No changes will be made to the DMLs.	The MMO notes these responses and welcomes the commitment to review the SIP and MMMP prior to submission to the MMO.
		a) Do The Wildlife Trusts consider that this		The Wildlife Trust	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		addresses their comments in [RR-091] on post-consent engagement? b) Could the Applicant please ensure that this is included in the SoCG requested for Deadline 1 and confirm whether and how this will require a change to relevant DCO / DML wording?		We welcome the fact that the Applicant has now agreed to update the Draft MMMP and the In-principle SIP to include TWT as a consultee [TW - 016]. TWT will assess our satisfaction when we see the updated Draft MMMP and the In-principle SIP at Deadline 3.	
1.2.43	The Applicant, Marine Management Organisation	Marine Mammal Mitigation Protocol: Point of Clarification The draft DMLs [APP-023] require that a final Marine Mammal Mitigation Protocol (MMMP) is approved prior to construction in respect of UXO clearance and piling activities associated with both the generation and transmission assets for each project. The submitted draft MMMP [APP-591] appears to indicate that separate MMMPs may be produced, at least in relation to piling and UXO clearance.	The MMO consider that in the event that more than one final MMMP is produced then there would be a need to coordinate their provisions. The MMO defer further comment on this matter to Natural England.	The Applicant a) The draft DCO (APP-023) provides for two MMMPs, one for UXO clearance and one for piling. These are secured separately in the Generation and Transmission DMLs but in practice a single MMMP, prepared to meet the requirements of both DMLs, would be produced for each activity. b) The MMMPs for each activity will follow the same structure and only deviate from each other where the detail of the activity requires this. The rationale for separation of	The MMO notes the Generation and Transmission Assets construction may not take place at the same time. If there is only one MMMP per activity this may require multiple revisions and consultation on each revision. The MMO would like to highlight concerns of the potential delay in proceeding with one document for both the Transmission and Generation Assets.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		a) Can the Applicant clarify what is the maximum number of Marine Mammal Mitigation Protocols that may be produced for a single project under the provisions of the draft DMLs? b) In the event that there would be more than one final MMMP, is there a need for coordination of their provisions?		MMMPs is a practical one, UXO clearance will take place in advance of piling, therefore the MMMP for that activity is developed separately to allow discharge of the relevant condition at the appropriate time.	For example, if the Transmission Assets begins construction first. The MMMP will be submitted 6 months prior to the commencement of the Transmission Assets activity. If there are issues with information in the Generation Assets section this would mean the document could not be discharged until all the issues with the Generation Assets had been resolved. Leading to potential delays to the Transmission commencement date if these weren't resolved in the 6 months. The MMO believes 6 months allows enough time to resolve issues however would like the Applicant to acknowledge the risk of this approach.
					The MMO welcomes the Applicant's clarification that the UXO MMMP would be submitted at a







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
					separate time to the piling MMMP.
1.2.44	The Applicant, Marine Management Organisation	Construction Monitoring: Cessation of Piling Condition The Applicant states in Table 29 of [AS-036] that it does not consider it necessary to add provisions recommended by the MMO to the DML construction monitoring conditions which would require piling to cease if noise levels are significantly higher than those assessed in the ES, with recommencement dependent upon an updated MMMP and MMO agreement to further monitoring requirements. a) Does the Applicant maintain this position in light of the inclusion of similar conditions for recently consented projects such as at condition 19(3) and 14(3) of the Norfolk Vanguard DMLs? b) If so, please can the Applicant explain why	c). The MMO does not see this as duplication. The MMO does not consider that the necessary enforcement powers exist under MCAA (2009). It is the MMO's view that the recommended provisions remain within the DML as the MMO do not agree that the enforcement powers under MCAA (2009) allow for a cessation of work in the same way the conditions would. Under MCAA (2009) the MMO could suspend or revoke the DML, however the MMO believe that this puts the project at risk of lengthy delay should an enforcement issue arise.	a) The Applicants do not consider the proposed text to be necessary within the DMLs as the MMO has the necessary enforcement powers under the Marine and Coastal Access Act 2009. The Applicants therefore do not consider that such a condition would meet the legal test of necessity as it duplicates statutory powers. b) The circumstances under which the Applicants and Norfolk Vanguard operate are the same, however the Applicants do not consider a DML condition to be justified for the reasons given above. Natural England Natural England supports the provisions recommended by MMO which would require piling to cease if noise levels are found to be significantly higher than those assessed in the environmental statement. We also note that this	The MMO does not consider that the necessary enforcement powers exist under MCAA (2009). The MMO's view is that the recommended provisions remain within the DML as the MMO do not agree that the enforcement powers under MCAA (2009) allow for a cessation of work in the same way the conditions would. Relying on the powers to suspend or revoke the licence, with the current wording of the condition there is a requirement for the Applicant to submit the noise report 6 weeks after the noise measurements are taken and activities can continue until the MMO advises otherwise – if the noise measurements are above the predictions







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		the circumstances of the projects before us justify a different approach to that taken in the Norfolk Vanguard case? c) Please could the MMO		condition has already been applied to other projects and therefore we consider it a standard condition.	from the ES there would be a substantive delay before any action could be taken by the MMO. The MMO believes that it is up to the Applicant to
		respond to the Applicant's statement that the necessary enforcement powers already exist under the Marine and Coastal Access Act 2009?			ensure any noise from piling is below the validations set out within the Environmental Statement. The MMO believes that the cessation wording should be included to ensure there is no further potential impact on marine mammals if the noise levels were higher than predicted.
					The MMO believes this is a standard condition and therefore will be requesting this condition on all future offshore windfarms and any other project that includes offshore piling.
1.2.45	Marine Management Organisation and the Applicant	Post-Construction Monitoring Commitments for Marine Mammals	a). Yes, the MMO consider that these changes adequately	The Applicant b) Yes, the Applicants intend to submit an updated In-Principle Monitoring Plan at Deadline 3.	The MMO will review the updated IPMP at Deadline 3.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		In Table 29 of [AS-029] the Applicant suggests amended wording to DML conditions relating to post-construction monitoring to remove reference to a three-year timescale. The Applicant also states that it will set out details of timescales for post-construction monitoring in the In-Principle Monitoring Plan [APP-590]. a) Does the MMO consider that these changes adequately address its concerns? b) Does the Applicant intend to submit an updated version of the In-Principle Monitoring Plan to this Examination?	address the concerns raised.		
1.2.46	The Wildlife Trusts, Natural England, Marine Management Organisation	Southern North Sea SAC: Adequacy of Monitoring Commitments Concerns have been expressed by The Wildlife Trusts about the monitoring secured in the dDCO in respect of harbour porpoise and the Southern North Sea	a). At this stage, the MMO broadly agree that the monitoring provisions included in the draft DMLs are fit for purpose and reflect the monitoring requirements of	Natural England a) Discussions regarding marine mammal monitoring are ongoing and we will provide an update at a future deadline. b) No comment from NE c) No comment from NE The Wildlife Trust	Natural England The MMO is working with NE to discuss marine mammal monitoring. The Wildlife Trust The MMO notes The Wildlife Trust has concerns on the current







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		SAC. The Offshore In Principle Monitoring Plan [APP-590] signposts to provision for monitoring (if required) in the Draft Marine Mammal Mitigation Protocol [APP-591] and In-Principle Site Integrity Plan [APP-594]. All three are to be certified documents under Art 36 of the DCO. a) Do the MMO and Natural England consider that the monitoring provisions included in the draft DMLs and subsidiary plans and protocols are fit for purpose in respect of marine mammals? b) Do The Wildlife Trusts wish to comment on the Applicant's response to its concern at line 011 of Table 66 in [AS-036]? c) What function do The Wildlife Trusts consider that any additional monitoring		b) + c) It is recognised that the Applicant has included provision for further monitoring (if required) in the Draft Marine Mammal Mitigation Protocol and In-Principle Site Integrity Plan, and TWT welcomes their inclusion as a consultee on the Draft MMMP and the Inprinciple SIP, and the opportunity to work with the Applicant to discuss the implementation of mitigation and monitoring further. However, TWT still has concerns about the Industry's lack of approach to strategic monitoring. Without an industry-wide regulatory mechanism and monitoring programme TWT cannot have confidence in the effectiveness of in-combination noise mitigation or the impact of the offshore wind industry on the site integrity of the Southern North Sea SAC. Currently there will be no monitoring of harbour porpoise post construction. Pre, during and post construction monitoring is required of both noise levels	lack of mechanism for management of SNS SAC and reiterates that a mechanism is being discussed as part of the SNS Regulators Group. The MMO notes that marine mammal monitoring discussions are ongoing and will provide an update at a future deadline.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		commitments would have and what form might they take?		and harbour porpoise activity to understand the impact of underwater noise on harbour porpoise as an EPS and on the Southern North Sea SAC.	
				Without an appropriate regulatory mechanism in place, TWT cannot agree to no adverse effect on the Southem North Sea SAC for EA1N & 2 in-combination with other identified projects.	
1.2.47	Whale and Dolphin Conservation and the Applicant	Whale and Dolphin Conservation: Participation in the Examinations The Applicant states in [AS- 036] that Whale and Dolphin Conservation (WDC) have advised that it will be making no further representations to these Examinations, however the ExA appears not to have received confirmation of this. a) Please could WDC confirm whether this is the case? b) In any event, please could WDC indicate whether the concerns set out in their RRs	N/A	The Applicant c) See Appendix 3 of this document for a copy of the email correspondence with WDC dated 15th April 2020 (document reference ExA.WQ-1.A3.D1.V1).	The MMO has reviewed Appendix 3 and notes the WDC is no longer taking part in the Examination process.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		[RR-090] continue to stand or whether the response provided by the Applicant in Table 67 of [AS-036] has altered its position? c) Please could the Applicant provide a copy of the correspondence dated 15 April 2020 to which [AS-036] refers?			
Benthic	ecology				
1.2.49	The Applicant, MMO	HRA Screening (EA2) Can the Applicant please respond to comments made by the MMO in its RR [RR-052] regarding benthic ecology and comment on how these may affect the conclusions drawn in the screening exercise? (The MMO is asked to comment on responses at Deadline 2.)	The MMO reserves comment until Deadline 2, as requested by the ExA.	The Applicant Following review of the MMO Relevant Representation (RR- 052), none of the comments made by the MMO in their Relevant Representation would alter either the way in which HRA screening was conducted or the conclusions that were reached regarding benthic ecology.	The MMO agrees that the comments within our relevant representations (RR-052) regarding benthic ecology receptors do not have implications for the HRA screening process. The MMO defers to Natural England on matters relating to HRA.
1.2.50	ММО	Micro-siting: benthic habitats Is the MMO [RR-052] content that the dDCO and DML are adequately drafted	The MMO note that 17(1) and 13 (1) of the draft DML makes provision for	The Applicant A Sabellaria reef management plan in accordance with an outline plan to be submitted at	The MMO has provided further comments on the Sabellaria reef Management Plan in







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		to ensure micro-siting to reduce or avoid impacts on valuable benthic habitats? Does anything else need to be provided for?	a design plan to be submitted to the MMO prior to the commencement of activities, and activities must not commence until the design plan has been approve by the MMO. This includes any exclusion zones/environmental micrositing requirements. The MMO will consult the relevant SNCB regarding this plan. At present the MMO consider that micrositing, and if required any exclusions zones, should be sufficient to avoid or, where avoidance is not possible, reduce impacts to benthic habitats. The MMO understand the applicant will be submitting a plan at this deadline to deal	Deadline 1 (document reference ExA.AS-4.D1.V1) will detail how Sabellaria reef will be managed during Project activities. The Applicants will include a condition within the DMLs requiring submission of a plan detailing Sabellaria reef management which would be in accordance with an outline Sabellaria Reef Management plan. This will be reflected in the updated draft DCO (APP-023) to be submitted at Deadline 3. Natural England Natural England notes that the Applicant intends to submit an Outline Sabellaria spinulosa reef Management Plan at Deadline 1 so NE will provide further advice at Deadline 2 or 3.	Section 1.6 of this document. The MMO will review the updated dDCO along with NE's comments at deadline 3.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
			with reef, and so the MMO defer further comment until such time as the plan has been reviewed.		
1.2.51	The Applicant	Sediment deposition: in- combination effects Please explain why it has been considered that no pathway exists for significant indirect in-combination effects to benthic ecology interest features from sediment deposition, given that East Anglia TWO and East Anglia ONE North may be constructed at the same time (or overlap) and that they partly share an offshore export cable route?	N/A	The Applicant Modelling undertaken for previous projects in the former East Anglia Zone (see Section 5.2.1, Habitats Regulations Assessment - Appendix 1 – Information to Support AA Report – HRA Screening Report (APP-044)) demonstrated that coarse sediment would settle out rapidly where disturbed (or dredged) and that indirect farfield effects would be limited to within 1km of the works and for the duration of one tidal cycle. For finer materials it was predicted that deposition could occur at up to 50km from the source, however, the deposited sediment layer across the wider seabed was found to be generally less than 0.2mm thick and did not exceed 2mm. There are no sites within 1km of the offshore development areas (where	The MMO agrees and has no concerns regarding the incombination effects of sediment deposition associated with EA1N and EA2 on benthic ecology receptors.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				most of sediment deposition would be expected to occur) and any deposition beyond this point is expected to be minimal. Cumulatively, suspended sediment would still behave in the same way, even if more sediment was suspended in the same area it would still fall out of suspension at the same distance and not affect a designated site. During Phase 3 consultation, Natural England stated in a letter dated 8th October 2018 responding to a consultation request from the Applicants regarding the HRA Screening Reports that they were 'content there is no potential for direct or indirect effects which could result in an LSE to offshore SACs with benthic habitat interest features'.	
	struction				
Project	Description [APP-054]				
1.4.6	The Applicant	Table 6.2 shows the various wind turbine and met mast foundation type options. Please	N/A	The Applicant a) Paragraph 36 refers to the wind turbine layout used in the	a) This comment has been noted by the MMO. b) This comment has been noted by the MMO.





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		a) confirm that paragraph 36 also refers to met masts; b) summarise the advantages and disadvantages of each foundation type; and c) explain which of the five is/are your preferred option(s) for this project and why.		SLVIA and therefore does not refer to met masts. b) Through the Rochdale Envelope approach the Applicants have assessed the worst case aspect of each foundation typology relevant to each respective impact for each respective receptor. Could the ExA clarify in what context advantages and disadvantages applies? c) At this stage, the Applicants are not able to commit to a preferred foundation type as this is something that is determined during detailed design and procurement. If this situation changes during the examination, the Applicants will update the ExA.	c) The MMO expects the preferred option to be fully detailed within all relevant pre-construction plans.
1.4.7	The Applicant	Table 6.2 shows the windfarm site area as 208km2 with one met mast, and paragraph 113 says that "there is the potential for one meteorological mast to be installed". Please explain	N/A	The Applicant a) A single met mast is considered sufficient to support wind and metocean measuring equipment to inform operational logistics. b) There are no anticipated interference issues. c) The met mast would be incorporated in the windfarm layout, respecting the same	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		a) why one meteorological mast is sufficient; b) how you will ensure that the performance of any associated equipment is not affected by electrical interference; and c) what will be its separation distance.		separation distances as the wind turbines, the minimum of which are set out in the Chapter 6 – Project Description (APP-054) as: • • in-row spacing – 800m; and • • inter-row spacing – 1,200m.	
1.4.8	The Applicant	Plate 6.1 shows the key dimensions of the proposed offshore wind turbines. a) What is the difference in depth between Lowest Astronomical Tide and Mean High Water Spring? b) How does this vary across the array area? and c) How is it expected to vary over the life of the project?		a) Lowest Astronomical Tide is up to 1.5m lower than Mean High Water Springs (MHWS) in the East Anglia TWO windfarm site and up to 0.93m lower than MHWS in the East Anglia ONE North windfarm site b) There is anticipated to be little variation (<0.5m) in lowest astronomical tide (LAT) or MHWS across the array areas. c) There is anticipated to be little variation in LAT or MHWS over the life of the Projects.	This comment has been noted by the MMO.
1.4.9	The Applicant	Paragraph 35 states that the worst case layout is that with fewer larger turbines, and that for tip heights between 250m	N/A	The Applicant The worst case varies between receptor topics and sometimes within topics for different	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		and the 300m maximum the		impacts. The example cited of	
		number of turbines could vary		fewer and larger was	
		between the maximum		determined to be the worst	
		number stated in the DCO		case for seascape effects	
		and the lower number stated		whereas for shipping and	
		for the 300m maximum tip		navigation risk the largest	
		height.		number of structures is the	
				worst case (irrespective of	
		 Explain how you 		size).	
		would calculate the		The approach taken is	
		number of turbines so		therefore to look at each	
		as to ensure that it lies		impact individually and	
		within the Rochdale		determine the worst case for	
		Envelope.		that assessment. For example,	
				the worst-case footprint on the seabed for turbines is	
				determined by a combination	
				of the number of turbines and	
				largest of each potential	
				foundation type. In this	
				example, the largest footprint	
				for a foundation type is the	
				gravity base structure. The	
				footprints are scaled up to the	
				maximum number of each	
				indicative models (250m and	
				300m) to determine which is	
				the worst and the impact	
				assessment done on that	
				footprint.	
				Assuming that the impact is	
				not significant (and would	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				require mitigation), this provides an allowable threshold for impact for that parameter. In the procurement process, the potential project designs are judged against each of these parameters and must fit within the assessed envelope. The Design Plan provides the detail of each parameter and must be approved by the Marine Management Organisation (MMO) in consultation with Trinity House and the Maritime and Coastal Agency (MCA) as secured under Conditions 17(1) of the Generation Deemed Marine Licence (DML) and 13(1) of the Transmission DML respectively.	
1.4.10	The Applicant	Paragraph 49 describes the overall installation methodology for pre-piled jackets and paragraph 50 describes the sequence for post-piled jackets: bullet point 7 of paragraph 50 says "Pin piles driven to depth using pilling hammer" (sic). Paragraph 101 lists the key	N/A	The Applicant If a pile is not driven fully to target depth, a thorough assessment would be undertaken before deciding on the next course of action. This would consider the level difference, the actual ground conditions encountered and the possibility of problems with	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		stages of steel monopile installation. • What happens if a pile cannot be driven to the target depth?		the piling equipment. The assessment might conclude a shorter piling depth is acceptable if actual ground conditions are more favourable than assumed in the original foundation design. However, if the pile needs to be driven further, driving would be attempted again and if necessary a drill may be deployed to drill through the harder geology. In an extreme event the piling location would be abandoned and the pile extracted or cut below seabed level. However, this is considered an extremely low likelihood event at this site because ground conditions are considered favourable for pile driving and there is the contingency available to drill/drive.	
1.4.11	The Applicant	In paragraph 51 you give values of hammer energy considered necessary for pile installation including a maximum value of 2,400kJ for a 4.6m diameter pin pile. Paragraph 102 states that 4,000kJ would be required for	N/A	The Applicant a) To date no windfarm developer has installed a 15m diameter monopile. Most information on monopiles comes from early projects where the diameter of piles is	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party	MMO's Comment on
		a 15m diameter monopile. In paragraph 52 you quote lower figures relating to the East Anglia ONE OWF. a) Are there any actual values available for monopiles? b) Why are these figures significantly higher than the figures obtained on the East Anglia ONE OWF?	Deadline 1:	Response at Deadline 1 significantly smaller than those assessed for the Projects. Dudgeon Offshore Windfarm for example had piles of 7.6m and used a maximum hammer energy of 2,843kJ during installation. The worst case scenario assessed in the Dudgeon ES was 3,000kJ. b) The figures are higher than those obtained at East Anglia ONE for two reasons: • The worst case diameter of pin piles assessed for the Projects are 4.6m, 2.1m larger than those used at East Anglia ONE. • Flexibility within the consent is required in the event that certain areas of the Projects' windfarm sites have ground conditions which require a higher energy to enable pile installation. However, as is demonstrated in paragraph 102, it is highly unlikely that the maximum hammer energy would be required for each foundation.	Response:
1.4.12	The Applicant	Paragraph 60 says that "There are many possible shapes and sizes being	N/A	The Applicant In the procurement process, the potential project designs	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		Given that new ideas are under development, and that the final form may differ from what is currently proposed, explain how you can be sure that what is actually constructed will be within the Rochdale envelope in respect of environmental assessment.		are judged against each of the parameters assessed in the EIA, and must fit within the envelope. The Design Plan provides the detail of each parameter and must be approved by the MMO in consultation with Trinity House and the MCA as secured under Conditions 17(1) of the Generation and 13(1) of the Transmission DML respectively.	
1.4.13	The Applicant	Paragraph 134 mentions a pre-lay grapnel run. a) Is this the offshore equivalent of onshore site clearance? b) Is this before or after commencement as defined in the DCO? And c) Do Tables 6.16 and 6.18 show all known assets to be crossed, and whether each is in		The Applicant a) This is a useful comparison. The pre-lay grapnel is a large dredge type device that will ensure that cable corridors are free from obstructions. b) This is a post-commencement activity that is undertaken just before cable installation c) Yes, this is correct although now both East Anglia ONE export cables are installed and in service.	a) This comment has been noted by the MMO. The MMO considers that this activity, which may involve boulder clearance, has the potential to impact upon the environment and should therefore be subject to approval of the appropriate methodology prior to commencement. b) This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		service or out of service?			
1.4.14	The Applicant	Paragraph 162 refers to cable crossing agreements. How will you proceed in the event that an agreement cannot be reached?	N/A	The Applicant Early engagement with all known offshore cable owners has taken place from Submission of the Preliminary Environmental Information Report (PEIR) in accordance with Section 42 of the Planning Act 2008 from the 11th February 2019. Subsequent engagement with all known offshore cable owners has followed pre-application to confirm the future intent of the Applicants to enter into crossing agreements with these parties. In addition, the Applicants have progressed draft SoCGs to confirm the intent to enter into a future crossing agreement and agree cooperation with those offshore cable owners identified as Energy Undertakers in accordance with Procedural Decision 7 (PD-006). These parties are as follows:	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
				• East Anglia ONE Limited (SoCG to be submitted at later deadline) • East Anglia THREE Limited (ExA.SoCG-34.D1.V1) • Interconnector UK Limited (ExA.SoCG-29.D1.V1 for the East Anglia ONE North project only) • Greater Gabbard	
				OFTO (ExA.SoCG-31.D1.V1)	
				Offshore telecommunications cable owners are not identified as requiring a SoCG, however have benefited from early engagement from the Applicants including the future intent of the Applicants to enter into crossing agreements with	
				these parties. These parties are as follows: • • Interoute Communications Limited • • Verizon Communications Inc • • BT Group Plc	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
			Beddille 1.	•	теоропос.
				Centurylink Inc	
				The offshore cable owner	
				cannot be identified for the	
				Hermes North (Aldeburgh to	
				Zandvoort) Telecoms cable	
				(out of service) which is	
				located within the East Anglia	
				TWO order limits. The	
				Applicants completed an	
				investigation into this	
				ownership and submitted the	
				findings that no identifiable	
				ownership could be traced to The Crown Estate (TCE) on	
				the 16th October 2019 and that	
				subsequently, consultation	
				towards a crossing agreement	
				could not be carried out. TCE	
				confirmed that East Anglia	
				TWO could proceed as it saw	
				fit in this instance.	
				In the event that agreement	
				cannot be reached between	
				the Applicants and an offshore	
				cable owner to allow for a	
				signed crossing agreement,	
				the Applicant will look to	
				comply with guidance specified in European Subsea Cables	
				Association (ESCA) Guideline	
				No. 6; The Proximity of	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
			Deadline 1.	Offshore Renewable Energy Installations & Submarine Cable Infrastructure in UK Waters1. The Applicants will also consult with TCE to confirm that any crossings would be designed and carried out in accordance with International Cable Protection Committee (ICPC) Recommendation 2 (Recommended Routing and Reporting Criteria for Cables in Proximity to Others)2 and Recommendation 3 (Criteria to be applied to Proposed Crossings between Submarine Telecommunications Cables and Pipelines / Power Cables)3 to demonstrate commitment to best practice and to seek permission to proceed.	response.





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
1.4.15	The Applicant	Paragraph 310 says that "Cables will be placed directly underground without ducting although ducting may be used in some or all of the route."		The Applicant a) The scenario described would reduce impacts, as per the rationale applied to East Anglia ONE and East Anglia THREE.	This comment has been noted by the MMO.
		a) Bearing in mind that there are two projects proceeding side by side onshore, should the onshore cables be laid in ducts throughout, with a view to reducing the construction impacts in the event that the projects are constructed consecutively rather than concurrently? . b) What would be the advantages and disadvantages of installing ducts for the second project at the		The determining factor in terms of which construction scenario is adopted will be the outcome of the Contract for Difference (CfD) auction, scheduled to be held by the UK Government in 2021 and every two years thereafter. Depending on the auction prices achieved, the auctions could see 1 to 2 gigawatts of new offshore wind being deployed every year in the 2020s. Whilst the precise level of Government funding for each round of future CfD auctions is yet to be announced, it is clear that the Government is continuing to drive the offshore	
		same time as installing the ducts and cables for the firs project? and c) if the onshore works were carried out	t	wind sector to reduce costs. Recent CfD auctions have seen significant reductions in the cost of offshore wind projects. In 2015, CfD Round 1 (in which East Anglia ONE	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		separately for each project, is it intended that the haul road would remain in place between the construction of the first and second projects?		successfully secured its CfD), achieved an average clearing price of approximately £117/MWh. In 2017, CfD Round 2 achieved prices as low as £58/MWh. The offshore wind CfD prices for CfD Round 3 in 2019 were lower still at around £40/MWh.	
				All indications are that this downward pressure will continue into the 2021 CfD auction, when the Projects are expected to enter the Round 4 CfD auction. This reduction in CfD strike price represents a significant challenge for the offshore wind sector to reduce construction costs, and is likely to result in only the most competitive projects receiving CfD support and therefore proceeding to construction. Acknowledging the extremely competitive market, in order to ensure the capital cost of both Projects are as competitive as possible, each project must bear its own construction cost. Should only East Anglia TWO be successful in the 2021 CfD auction for example, that	







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
				project may not be able to	
				carry the significant cost of the	
				duct installation for the East	
				Anglia ONE North project as it	
				would increase the East Anglia	
				TWO construction costs,	
				making the East Anglia TWO	
				project less competitive and	
				potentially jeopardising its	
				ability to secure a CfD in its	
				own right (and vice versa if	
				only East Anglia ONE North was successful in the 2021	
				auction). In that case, both	
				Projects would progress	
				sequentially (construction	
				scenario 2), with the project	
				that was not successful in the	
				2021 auction proceeding to	
				construction at a later date	
				once it secures a CfD.	
				The Applicants are currently	
				investigating the possibility of	
				installing ducts for both	
				projects in parallel should the	
				Projects be built sequentially.	
				An update will be provided at	
				Deadline 2.	
				b) If ducts were used for the	
				second project:	
				Cables would be installed in	
				sections between jointing bays,	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
			Deadline 1:	Response at Deadline 1 the worst case assumes 19 jointing bays along the onshore cable route. The jointing bays would need to be accessed via a haul road. Cables would be pulled through the ducts across the	Response:
				full-length of the onshore cable route. • The advantage would be to reduce the intrusiveness of the cable pulling when compared to open trenching for the second project. The footprint for impacts would be	
				the same as per parallel construction, however some repeated impacts would be avoided or reduced in magnitude for the second project. • There are no	
				disadvantages from this approach in terms of environmental impact. • c) Requirement 29 of the <i>draft DCO</i> (APP-023) requires that any land which is used temporarily for construction of the onshore works and not ultimately	





ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
				incorporated into permanent	
				works or approved landscaping	
				must be reinstated within	
				twelve months of completion of	
				the relevant stage of the works	
				or such other period as the	
				relevant planning authority	
				may approve. The assumption	
				would therefore be that the	
				haul road will be removed and	
				the land reinstated where there	
				is a gap between the	
				construction of the first project	
				and the second project.	
				However, there is scope for	
				agreeing with the relevant	
				planning authority that works	
				are not to be reinstated within	
				the twelve month period. This	
				flexibility is intended to cover the situation where it would	
				make sense (for example, from an environmental perspective)	
				for temporary works to remain	
				in place between the	
				construction of one project and	
				the construction of the second	
				(i.e. where removal and	
				reconstruction of the temporary	
				works may give rise to more	
				impacts than leaving them in	
				place between the construction	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1 of the first and second projects might).	MMO's Comment on Response:
1.4.20	The Applicant	Paragraphs 464 and 465 describe the construction of the foundations for the onshore substation, noting that dewatering of excavations may be required. • Please explain how your proposals will not impact on water quality or water supply, or cause or exacerbate flooding.	N/A	The Applicant With regards to impacting on water quality and supply, construction of the onshore substation (including foundations) will be in accordance with the Applicants' final Code of Construction Practice (CoCP). This must be provided by the Applicants and approved by the relevant planning authority under Requirement 22 of the draft DCO (APP-023). Outline measures with regards to water quality and supply are provided in section 11 of the Outline Code of Construction Practice (APP-578).	This comment has been noted by the MMO.



ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				Embedded mitigation in relation to surface water runoff and flood risk is presented within section 20.3.3 and Table 20.3 of Chapter 20 Water Resources and Flood Risk (APP-068). Issues pertinent to construction phase drainage, including consideration of surface water runoff, will be managed through the development and implementation of a Surface Water and Drainage Management Plan to be submitted post-consent as part of the CoCP, as secured under the requirements of the draft DCO (APP-023). This must be approved by the relevant planning authority before works can commence.	
				The Surface Water and Drainage Management Plan will secure measures which limit discharges to a controlled rate (equivalent to the greenfield runoff rate) and ensure that any redirected overland flow routes do not cause an increase in offsite flood risk.	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				The CoCP will also include silt control measures (e.g. silt fences at soil storage areas) to intercept sediment runoff and prevent it from entering the water environment.	
1.5 Draf	t Development Conse	ent Order (dDCO)			
Schedul	le 13 – DML (generation	on assets)			
1.5.16	The Applicant	Condition 17(1)(f) (Preconstruction plans and documentation) states that the event that driven or par driven pile foundations are proposed a marine mammal mitigation protoco "is to be submitted to an approved in writing by the MMO. a) Should this condition include restricting maximum hammer energy? and b) if so, should any sucception vary according to the foundation type being used?	"In of d d	The Applicant It is not necessary for Condition 17(1)(f) of the Generation DML to restrict maximum hammer energy as this is controlled by Condition 17(3) which limits hammer energy by reference to foundation type. Condition 13(3) of the Transmission DML similarly includes a restriction on hammer energy.	The MMO agrees with the Applicant's response in respect of both the conditions present in the Transmission DML and the Generation DML.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
1.5.17	The Applicant	Does Condition 17(1)(c) include requiring pre and post-construction surveys and monitoring for benthic communities and geophysical features? • If not, why not?	N/A	The Applicant Condition 17(1)(c) in the generation DML and 13(1)(c) in the transmission DML secures preparation and timescales for the Monitoring Plan. Condition 20(2) and 22(2) in the generation DML and Condition 16(2) and 18(2) in the transmission DML secure the required pre and post construction surveys (swath-bathymetry (geophysical) surveys and surveys of Sabellaria spinulosa, a benthic community). No other benthic features will require any survey.	The MMO agrees with the Applicants response to this question.
1.5.18	The Applicant	Art 37 and Schedule 15 – Arbitration Made DCOs for offshore wind farms have tended to have relatively simple arbitration provisions, in which the SoS appoints the arbitrator and the remit of arbitration is limited. Sch 15 in these dDCOs provide more substantial and complex provisions for arbitration than	N/A	The Applicant The Applicants intend to delete paragraph (2) of Article 37 of the draft DCO which refers to disputes with the Secretary of State and the appointment of an arbitrator by a person other than the Secretary of State. This is to make it clear that the arbitration provisions are not intended to apply to decisions of the Secretary of State or of	The MMO welcomes the removal of Article 37 (2) and will review the updated DCO at Deadline 3. The MMO requests that the following wording is included in Article 37 to make it clear that the arbitration provisions do not apply to the MMO:







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
	Question to.	have been typical, including processes that provide for the appointment of an arbitrator other than by the SoS and, amongst other outcomes, that could refer the decisions of the SoS and the MMO to arbitration. The ExA for the Norfolk Vanguard Offshore Wind Farm examined what commenced as a similar set of arbitration provisions to the ones included here. Their Recommendation Report¹ at Chapter 9.4 records a process of simplification during that examination, including the removal of provisions subjecting the SoS and the MMO to arbitration. In taking this approach, the	Deadline 1:		
		ExA there observed that it had not been provided with evidence of the specific harms that had been occasioned by MMO decision-making and that justified the imposition of an			

¹ Norfolk Vanguard Offshore Wind Farm Recommendation Report, (September 2019)



ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		arbitration mechanism that was not available for the beneficiaries of other equivalent DMLs. The SoS accepted the ExA's approach, but additionally formed the view that an arbitrator should not be appointed by a person other than the SoS. The decision letter ² identifies changes to the made Order as a consequence. The same issues (complex arbitration provisions without a clear justification) were analysed by the ExA in the Thanet Extension Offshore Wind Farm Recommendation Report ³ , from paragraph 11.4.4. In that case, because the SoS decided not to make the DCO, the decision letter does not directly consider the ExA's recommended approach to arbitration. However, the Applicant is referred to the reasoning			

Norfolk Vanguard Offshore Wind Farm, SoS Decision Letter, (July 2020)
 Thanet Extension Offshore Wind Farm Recommendation Report, (September 2019)







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		there and asked to respond to it in the following terms: a) In the light of the decision in Norfolk Vanguard and the ExA reasoning in Thanet Extension, is there an evidence base that supports arbitration provisions that subject decisions by relevant statutory authorities (specifically the MMO and or the SoS) to arbitration? b) Is there an evidence base that supports the appointment of an arbitrator by a person other than the SoS?			
1.5.19	The Applicant	Schedule 15 – Arbitration Paragraph 6(3) provides for costs to follow the event and Paragraph 7 provides for confidentiality. a) What is the justification for imposing costs on regulatory bodies who	N/A	The Applicant It is not intended for the arbitration provisions to apply to regulatory bodies.	The MMO welcomes this clarification by the Applicant.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		may be acting reasonably in relation to their statutory functions? b) What is the justification for seeking confidentiality where matters of public interest and environmental protection are involved, and can it lawfully be delivered in circumstances where transparency is provided for (e.g. as a consequence of the UK's signature to the Aarhus Convention)?			
1.5.20	The Applicant	Explanatory Note Please confirm that the reference to Art 37 (certification of plans etc) should be to Art 36.	N/A	The Applicant The Applicants confirm that the reference in the Explanatory Note to Art 37 (certification of plans etc.) should be "Art 36 (certification of plans etc.)". This will be amended in the next iteration of the dDCO which will be submitted at Deadline 3 pursuant to the Examination timetables.	This comment has been noted by the MMO.



ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
1.5.21	The Applicant	Matters not Addressed and Unsecured: Monitoring Schedules The Application documents sets do not include a Schedule of Monitoring. The ExA considers that a Monitoring Schedule is a valuable document: such schedules record all monitoring commitments entered into by the Applicant and, if proposed to be certified under Arts 36, ensures that relevant monitoring commitments are secured and are easily located during construction, operation or decommissioning as necessary. The Applicant is requested to submit a Schedule of Monitoring for both Applications drafted as a document for certification and to amend draft Art 36 accordingly.	N/A	The Applicant The Applicants consider that these matters are covered in the In-Principle Monitoring Plan which will be certified under Article 36. An updated version of this document will be submitted at Deadline 3. The Applicants do not consider a separate monitoring schedule to be necessary.	The MMO notes previous DCOs do not have a certified Monitoring Schedule however agrees with the Applicant that this should all be covered within the In Principle Monitoring Plan. The MMO has raised further comments on Article 36 and Certified documents in Section 2.4 of this document.
1.5.21	The Applicant	Matters Unsecured:	N/A	The Applicant	The MMO notes previous
		Mitigation Schedules		The Schedules of Mitigation are signposting documents which	DCOs do not have a certified Mitigation







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		The ExA consider that Mitigation Schedules should be certified under Art 36, ensuring that relevant commitments are secured and are easily located during construction, operation or decommissioning as necessary. The Applicant is requested to amend draft Art 36 accordingly.		set out the mitigation measures proposed within the ES and how such measures are secured, they do not secure any mitigation measures. All mitigation is captured within the DCO requirements, DML conditions or in the plans and documents secured within the draft DCO. It is therefore not considered to be necessary or appropriate for the Schedules of Mitigation to be listed as certified documents within Article 36 of the draft DCO.	Schedule. The MMO will review the updated outline documents at deadline 3 to ensure any potential mitigation is covered. The MMO is discussing this further internally and with the Applicant will provide and update at Deadline 4. The MMO has raised further comments on Article 36 and Certified documents in this document.
1.8 Histo	The Applicant	Historic Environment Policy Balance	N/A	The Applicant Yes, the Offshore WSI can be	This comment has been noted by the MMO.
		Paragraph 51 of Chapter 24 of the ESs [APP-072,] contains a precis of Table 24-4 and aims to summarise Government policy. This states that government guidance provides a framework which, amongst other items:		updated to meet Historic England's concerns. The Applicants have been and will continue to engage with HE through the SoCG process. A draft SoCG with HE (ExA.SoCG-16.D1.V1) has been submitted at Deadline 1.	The MMO has provided comments on Historic England's written response in section 1.1. The MMO supports Historic England in all Offshore Archaeology matters.
		"places weight on the conservation of designated			







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		heritage assets (which include world heritage sites, scheduled monuments, listed buildings, protected wreck sites, registered parks and gardens, registered battlefields or conservation areas), with any anticipated substantial harm weighed against the public benefits of the proposal. However, NPS EN-1 states: "Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development" (para 5.8.15) and that: "Substantial harm to or loss of a grade II listed building park or garden should be exceptional", with substantial harm to or loss of designated assets of the highest significance, including grade II*listed buildings considered			



ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		as wholly exceptional (para 5.8.14).			
		The National Planning Policy Framework (NPPF) states that:			
		"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any harm amounts to substantial harm, total loss or less than substantial harm to its significance." [ExA's emphasis, para 193)			
		The NPPF goes on to state that any harm to or loss the significance of a designated heritage asset (including from development within its setting) should require clear and convincing justification (para 194), that substantial			







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
EXQ3	Question to.	harm requires substantial public benefits that outweigh that harm (para 195) and that less than substantial harm should be weighed against the public benefits of the proposal (para 196). a) Do you agree with the ExA's summary of Government policy and guidance above? b) If so, do you agree that a more correct interpretation of Government guidance for the ES would be that guidance places great weight on the conservation of designated heritage			
		assets, and that any anticipated substantial harm should be outweighed by substantial public benefits and that substantial harm to or loss of a grade II listed building should be exceptional, or to a grade II*listed building			







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		considered as wholly exceptional? c) And having reached this position, please review the assessments of impacts on relevant historic built assets, ensuring that the appropriate policy tests are applied. d) If you do not agree with the ExAs' policy summary above, please provide reasoned justification as to why not.			
	rine and Coastal Physica		_	_	
1.11.1	The Applicant	UK Climate projections and coastal erosion The ExA notes that Appendix 4.6 of the ES [APP-447] was produced in April 2018. The UK Climate Projections 2018 (UCKP18) was published on 26 November 2018 • Do the projections have any implications for the conclusions	N/A	The Applicant The Applicants' assessment in Appendix 4.6 Coastal processes and Landfall Site Selection (APP-447) adopted conservative factors for future coastal change, based upon guidance that was available at the time. The Applicants have undertaken a comparison of the rates of sea level rise used in the assessment against the	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		drawn in Appendix 4.6 or ES Chapter 4 [APP-052] or on the risk of the development being affected by coastal change?		UKCP18 data and considers the assessment to be robust. Whilst the values used are slightly lower than UKCP18 over shorter timescales (approximately 50 years),they are higher than UKCP18 values for the longer term (50 years+) for RCP2.6 (50th and 95th percentile values), RCP4.5 (50th and 95th percentile values) and RCP8.5 (50th percentile value)1. The values used are slightly lower than the RCP8.5 95th percentile value over the longer term but this is considered an unlikely highend outcome.	
1.11.2	The Applicant	Mitigation and remediation at landfall a) In the event that cables were to become exposed due to coastal erosion what mitigation or remediation measures may be required? How would this be monitored? Paragraph 5.510 of (EN-1) seeks to ensure that	N/A	The Applicant a) Future trends in coastal erosion has been assessed in Appendix 4.6 Coastal processes and Landfall Site Selection (APP-447). The study quantified appropriate set back distances from the cliff line depending on where a future landfall location is chosen. This was proposed on a conservative precautionary approach. The	This comment has been noted by the MMO. Please see comments in Section 1.5 of this document on the Outline Landfall Construction Method Statement.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		proposed developments will be resilient to coastal erosion and deposition, taking account of climate change, during the project's operational life and any decommissioning period. b) How has the resilience to costal erosion during the decommissioning period been addressed?		Applicants have committed to setting back the landfall transition bays to the potential 100-year erosion prediction line to ensure the integrity of the cliff is not compromised and to allow for natural coastal erosion (section 6.6.2 of Chapter 6 Project Description (APP-054)). It is therefore the Applicants' view that the cables will not become exposed from coastal erosion. A commitment has also been made to install the export cable at the landfall using trenchless techniques, thus minimising disturbance to the cliffs and SSSI. Monitoring of the landfall will be undertaken as set out in section 3 of the Outline Landfall Construction Method Statement (ExA.AS-2.D1.V1), submitted at Deadline 1.	
				b) The Applicant has committed to setting back the landfall transition bays to the potential 100-year erosion prediction line to allow for coastal erosion over the entire duration of the project	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				including decommissioning (section 6.6.2 of Chapter 6 Project Description (APP-054)). This has been informed by the technical study provided in Appendix 4.6 (APP-447).	
1.11.3	The Applicant	HDD at landfall Use of the horizontal directional drill (HDD) method to bring the offshore cables onshore is understood to reduce potential significant adverse impacts on Coraline crag and the Lesiton to Aldeburgh SSSI a) Please identify, with reference to the Shoreline Management Plan (SMP) and the assessments in Appendix 4.6 where the parameters have been calculated and set for the length, depth and angles of drilling that are compatible with the assessments	N/A	The Applicant The Applicants intend to use a trenchless technique solution at the landfall. HDD is an example of a trenchless technique and is the technique that formed the basis of the impact assessment. The Applicants refer to sections 4 and 5 of the Outline Landfall Construction Method Statement (ExA.AS-2.D1.V1), submitted at Deadline 1 which provide outline information regarding the HDD design and methodology respectively. Detailed parameters such as length, depth and angles of the drilling will be subject to detailed design and will be provided in the final Landfall Construction Method Statement which is secured under Requirement 13 of the draft DCO (APP-023).	This comment has been noted by the MMO. Please see comments in Section 1.5 of this document on the Outline Landfall Construction Method Statement.







ExQ3	Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
		b) Does the Applicant intend on submitting a draft landfall construction method statement into the Examination and if so when?		The infrastructure associated with the HDD at landfall has been appropriately sited based on the Applicants' identification of the potential 100-year erosion prediction line which allows for coastal erosion over the entire duration of the project (<i>Appendix 4.6</i> (APP-447)). The 100-year erosion prediction line is based on the current management measures of the SMP and additional analysis of the characteristics and behaviour of the shoreline as presented in <i>section 2</i> of <i>Appendix 4.6</i> .(APP-447). The transition bays would be installed with a minimum setback distance of 85m from the cliff top to ensure the integrity of the cliff is not compromised and to allow for natural coastal erosion. The boundary of associated Work No. 8reflects this set back distance. b) The Applicants have provided an <i>Outline Landfall Construction Method</i>	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				Statement (ExA.AS-2.D1.V1), at Deadline 1.	
1.11.4	The Applicant	Geological integrity and stability at landfall What site investigations have taken place to ensure that the geological integrity and stability the shoreline could withstand vibrations or fracturing as a result of HDD or during operation and what are the results?	N/A	The Applicant The Applicants note the concerns and sensitivities, particularly expressed by local residents, in relation to the perceived potential to destabilise the existing cliffs. The siting of the landfall has been carefully considered. Review of published and publicly available geological and geotechnical information has been undertaken as part of a desk-based assessment and to inform the development of the outline designs presented in the Applications. Intrusive site investigations have not been undertaken, however these will be undertaken as part of the preconstruction detailed design to allow full assessment of all relevant geotechnical risks and to enable detailed design of the HDDs. Requirement 13 of the DCO requires that a landfall construction method statement	This comment has been noted by the MMO. Please see comments in Section 1.5 of this document on the Outline Landfall Construction Method Statement.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				is submitted to and approved by the relevant planning authority prior to any landfall works being carried out. This will be in accordance with the <i>Outline Landfall Construction Method Statement</i> (ExA.AS-2.D1.V1), which has been submitted at Deadline 1. The outline landfall construction method statement includes provisions for the following measures to protect the integrity of the cliff: • • The transition bay will be located a setback distance of at least 85m from the current mapped top of the cliff line. The outline design of the HDD is approximately 10m below the beach level of the cliff line even at the maximum predicted 100 year erosion extent. This is shown indicatively in <i>Appendix 11</i> (ExA.WQ-1.A11.D1.V1). The depth of the HDD will be deeper below the toe of the existing cliffs, potentially between 15m and 20m below the toe level. This is to ensure	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				the integrity of the cliff is not compromised and to account for natural coastal erosion during the operational life of the Projects. • • The British Geological Survey Geological Map Sheet 191 (solid and drift) 1:50,000 shows a thin strip of Lowestoft Till formation outcropping along the cliff line to the north of Thorpeness. The anticipated thickness (depth) and geometry of the superficial deposits is such that directional drilling is expected to pass through these and be within the underlying bedrock (Crag Group) where the HDD passes under the current cliff line.	
				HDD uses rotary rather than percussive drilling and only minor vibrations are expected. The detailed design will be developed to take into account the anticipated levels of vibration from the proposed drilling equipment to ensure the integrity of the cliff.	



Question to:	Question:	MMO Response at	Applicant/Interested Party	MMO's Comment on
Question to:	Question:	MMO Response at Deadline 1:	• Vibration monitoring will be undertaken in the vicinity of the cliffs as part of the site investigation works to gather background data on vibration levels. This data will be examined to establish a suitable vibration limit which will be maintained during the HDD works to ensure the integrity of the cliffs are maintained. • Vibration monitoring will be undertaken in the vicinity of the cliffs for the duration of the HDD works. A system will be set up to pause drilling operations if the set vibration limits are exceeded. HDD has been used successfully in similar geology comprising superficial	MMO's Comment on Response:
			duration of the HDD works. A system will be set up to pause drilling operations if the set vibration limits are exceeded. HDD has been used successfully in similar geology	
			Lowestoft Till formation deposits and underlying Crag Group bedrock, with nearby examples of HDD for cable landfalls for both the Greater Gabbard Offshore Windfarm and the Galloper Offshore Windfarm south of Sizewell	
	Question to:	Question to: Question:		Deadline 1: Pesponse at Deadline 1 Vibration monitoring will be undertaken in the vicinity of the cliffs as part of the site investigation works to gather background data on vibration levels. This data will be examined to establish a suitable vibration limit which will be maintained during the HDD works to ensure the integrity of the cliffs are maintained. Vibration monitoring will be undertaken in the vicinity of the cliffs for the duration of the HDD works. A system will be set up to pause drilling operations if the set vibration limits are exceeded. HDD has been used successfully in similar geology comprising superficial Lowestoft Till formation deposits and underlying Crag Group bedrock, with nearby examples of HDD for cable landfalls for both the Greater Gabbard Offshore Windfarm and the Galloper Offshore







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				2.5km north of Thorpeness. These HDDs were much shallower and shorter. They extended from agricultural fields, under the cliff line and exited on the beach. The Applicants are not aware of any issues relating to adverse impacts on the cliff line. There were some post installation issues with exposure of transmission cables on the shore at Sizewell, these occurred beyond where the HDDs terminated and are unrelated to the actual HDDs. The proposal for the Projects is to pass beneath the shoreline at depth and exit well offshore,	
1.11.6	The Applicant	Preferred solutions at landfall ES Chapter 4 states that the preferred solution is to HDD from onshore landfall to south of the Coraline crag, potentially including HDD under a small section of the southern extent of Coraline crag. Further geological and	N/A	avoiding similar burial issues. The Applicant HDD is a commonly used technique and has been employed for many projects including East Anglia ONE/THREE, Greater Gabbard, Galloper, Moray East, Sheringham Shoal and Dudgeon. These have been undertaken in a variety of geologies and distances.	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		engineering surveys will lead to a final installation location. • What are the implications if the preferred solution is not achievable?		The Applicants are of the view that HDD is achievable for the Projects. The onshore works area allows for up to four HDD bores. The works area offshore is sufficiently wide to enable the HDD punch out to be appropriately located to avoid the Coralline Crag. The final design of the HDD operation (i.e. angle, depth and exit location) will reflect the results of the site investigation works. This information will be provided in the final Landfall Construction Method Statement, secured under Requirement 13 of the <i>draft DCO</i> (APP-023).	
				Alternative trenchless techniques would also fit within the impact assessment envelope adopted for the EIA.	
1.11.7	The Applicant	Landfall compound, cable entry point, cable exit point, long HDD, coastal erosion, Coraline crag and SPA/SSSI boundary Please provide plan view(s) of the proposed HDD working area(s) including any		The Applicant The Applicants refer to Appendix 10 (ExA.WQ- 1.A10.D1.V1) of this document. Note that the HDD temporary working area described in section 6.6.2.1.3 of Chapter 6 Project	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		temporary landfall compound, cable entry point, cable exit point, long HDD, 100 year predicted shoreline, SSSI/SPA boundary and extent of Coraline crag		Description (APP-054) will contain the HDD entry compounds. The eastern boundary of Work No. 8 is set at least 85m from the cliff and the potential 100-year erosion line to ensure the integrity of the cliff is not compromised and to allow for natural coastal erosion.	
1.11.9	SCC, ESC, Environment Agency, Marine Management Organisation	Coastal erosion predictions Do you agree with the conclusions on the extent of future coastal erosion set out in Appendix 4.6 [APP-447]?	The MMO agree with the applicant's conclusions regarding the extent of future coastal erosion and consider that the information available to the applicant allows for a good assessment of the area, in terms of present-day trends of erosion. The MMO's understanding of the wider coastal system is generally consistent with their own, which has been developed through the MMO's	Environment Agency We reviewed and were satisfied with the conclusions presented on the extent of future coastal erosion through our involvement in the Landfall and Coastal Processes Expert Topic Group. We are not aware of any significant changes on the shoreline that is likely to alter the conclusions reached. However, we strongly advise that East Suffolk Council continue to be consulted as they are the operating authority for this section of coast and will have the most up to date information on any issues that might have arisen. ECS Lead Authority	The MMO has no further comments to add.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
			involvement in the proposed Sizewell C new nuclear build over the previous decade. The MMO consider that longterm rates of erosion presented in Table A4.6 of the document are reasonable projections. The MMO further note that that the Development Consent Order (DCO) application for Sizewell C has now been submitted, meaning that the associated evidence base is now in the public domain and may further support the applicants' studies should the examining authority wish to access this. Although we do note that DCO variations have been submitted to PINs	Yes - The conclusions in the ES Appendix 4.6 report are based upon the Royal Haskoning DHV report: Sizewell Cliffs Landfall Site Review of Coastal Erosion Client: Scottish Power Renewables. Reference: I&BPB4842R001F0.1 Revision: 0.1/Final Date: 19 September 2017' This report was updated by the RHDHV study 54 P a g e `Sizewell Cliffs – EA2/EA1N Landfall - Review of Coastal Erosion Assessment of recent erosion data – implications on projected erosion lines. Client: Scottish Power Renewables Reference: PB4842I&BRP1806051516 Revision: 0.1/Final, Date: 12 July 2018' The revised report identified an increase in erosion rates in some areas. The Applicants have committed to using the updated coastal change risk information in the detailed design of the landfall infrastructure, including Transition Bay location, that	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
			which could impact on coastal processes. Overall, the MMO is content that the applicant has successfully assessed the extent of future coastal erosion. The MMO is expecting further information from Sizewell C to be submitted in November regarding the DCO variation. Should the need arise, the MMO will give comment on any future requirements for additional modelling to account for the changes in the Sizewell C project at a later date.	will be submitted to ESC for acceptance in the LCMS.	
I.IZ IVIA	rine Effects				
1.12.1	Trinity House	Effects on navigation, lighthouses, buoys and beacons	N/A	Trinity House remain at the position stated within the draft SoCG (AS-053) and are waiting to review an updated	This comment has been noted by the MMO.





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		The Trinity House RRs [RR-029] identify the likelihood of further comments. Please ensure that any substantive observations on navigational risk or infrastructure are made in your WRs at Deadline 1. • Are any substantive amendments to the proposed development sought and if so why are they required and how should they be secured? • Please provide best progress on and justifications for any amended dDCO drafting sought (see draft SoCG [AS-053] (ID TH-105)).		Draft DCO/DML to see what changes the applicant has made from our original suggestions and discussions. Trinity House are largely content with the document at this stage. The Applicant has stated the latest Draft DCO/DML will be available at deadline 3 and Trinity House will comment further once we have seen that document.	
1.12.2	Maritime and Coastguard Agency	Effects on shipping and navigation, search and rescue The Maritime and Coastguard Agency RRs [RR-053] identify the potential for further comments and correspondence in response to the ExA's Rule 9 Letter of	N/A	Based on the agreements reached through the Statement of Common Ground (SoCG) to date, the MCA has no further substantive observations on shipping, navigational risk or search and rescue since our Relevant Representation (RR). This is on the understanding that our requirements are	The MMO welcomes MCA's support on arbitration. Otherwise, MMO notes MCA's response and welcomes that no further substantive observations have been raised in their







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		21 May 2020 [AS-058] does not set out or rule out further comments. Please ensure that any substantive observations on shipping, navigational risk or search and rescue are made in your WRs at Deadline 1. Please provide best progress on and justifications for any amended dDCO drafting sought (see draft SoCG [AS-051] (ID MMO-005)).		suitably addressed through the Development Consent Order (DCO) and its Deemed Marine Licence (DML). To date, there are a number of items to be addressed in the draft DCO/DML and we have not yet seen the revised version to be satisfied that the impact on shipping and navigation has been addressed through suitably worded conditions of consent. We understand the revised draft DCO/DML will be submitted at deadline 3. The MCA would like to add that it supports the MMO's position with regards to Arbitration.	discussions with the Applicant.
1.12.3	Maritime and Coastguard Agency	Application of Marine Guidance Notes and related documents What (if any) are the as yet undocumented implications of the proposed development arising from: a) Marine Guidance Note (MGN) [543] Safety of Navigation: Offshore Renewable	N/A	The MCA expects all OREIs to be assessed in accordance with MGN 543 and its annexes. There is currently one outstanding aspect on MGN 543 regarding the submission of Hydrographic Survey data to the MCA. However, this is being addressed between MCA and the applicant as per SoCG and	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
		Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response and its annexes; b) Marine Guidance Note (MGN) [372] Safety of Navigation; Guidance to Mariners operating in the vicinity of UK OREIs; and c) Methodology for Assessing the Marine Navigational Safety and Emergency Response Risks of Offshore Renewable Energy Installations? d) Please document any substantive amendments to the proposed development that you seek to respond to these documents, identify why are they required and how these should be secured?		we expect to close this by deadline 3. The other outstanding aspect is ensuring the MCA's requirements for shipping and navigation are adequately secured through condition of consent in the DCO/DML.	







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party	MMO's Comment on
			Deadline 1:	Response at Deadline 1	Response:
1.12.4	Maritime and Coastguard Agency, Trinity House	Ro-ro operations Do you have any observations on the position of the CLdN Group on navigational safety effects for ro-ro operations [RR-026] or the Applicants' responses to those [AS-036]?	N/A	The MCA has considered RR-026 and the Applicants' responses to those comments [AS-036]. The MCA agrees with the comments made by CLdN and we are content with the risk mitigation measures the applicant is putting in place. However, we are yet to see the revised DCO/DML incorporating all of our requirements, and to see how the risk mitigation measures have been secured through the wording in the DCO/DML. The MCA would like to ensure that any route deviation or impact on Ro-Ro ferries is adequately addressed through consultation with those affected and considered in the NRA. We understand from the RR from CLdN Group that they have been consulted about the project by the applicant and they consider that there should be no impact on its operations. We believe they are seeking reassurance that the mitigation measures identified, to bring the risk to ALARP, are suitably	This comment has been noted by the MMO.







ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				secured through the DCO/DML – which we fully agree and support.	
				Trinity House	
				Trinity House agree with the statement from CLdN in RR-026 that "Any failure to provide the mitigation would present collision and allision risk to commercial shipping, particularly in the event of ships sailing off their usual course as a result of adverse weather or other incidents." The applicant's response (AS-036) is correct stating the embedded mitigation. This will include AtoN, as agreed with Trinity House, to aid identification of the windfarm and mitigate the risks to shipping in the scenario described by CLdN. Trinity House have requested clauses in the DCO/DML (APP-023) DML Part 2 7.(1) where we reserve the right to change AtoN if the risk identified at the site change over the lifetime of the developments.	



ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
				Trinity House are unaware of any adverse weather routeing used by CLdN and cannot comment on any commercial impacts created by the proposed developments or mitigation required for these.	
1.12.6	Maritime and Coastguard Agency, Trinity House	Individual project effects: shipping and navigation Please identify whether there are any outstanding shipping and navigation effects that bear only on the proposed development for East Anglia TWO?	N/A	Maritime Coastguard Agency: There are no issues from MCA's perspective that we wish to raise. Stakeholder agreement in the hazard log and risk controls measures is a key requirement for the MCA and we are not aware of any significant issues raised that bear only on the proposed development for East Anglia TWO, which MCA needs to highlight here. Trinity House: Trinity House are not currently aware of any outstanding shipping and navigation effects to be addressed by East Anglia TWO.	This comment has been noted by the MMO.





ExQ3	Question to:	Question:	MMO Response at Deadline 1:	Applicant/Interested Party Response at Deadline 1	MMO's Comment on Response:
1.16 Sea	ascape, Landscape an	d Visual Amenity			•
1.16.3	Natural England	Visual effects of turbines Detailed analysis of the visible height of offshore wind turbines is provided by yourselves to the ExAs ([RR- 059], Appendices E, Section 2). The ExA also note the detailed responses of the Applicants to this analysis in their response to the RRs [AS-036] and their view that there are limitations to the analysis presented and that the apparent height of the Project 300m turbines will only be greater than that of the existing offshore windfarms in views from northern parts of the seascape setting of the AONB. ☐ Respond to this analysis of your comments, should you wish to do so.	N/A	Natural England Natural England has provided further advice at Deadline 1 response Appendix E1b on Seascape and Landscape Visual Impact Assessment (SLVIA).	On review of Appendix E1b submitted by Natural England at deadline 1, the MMO notes there is potential tension betweer mitigation measures for ornithology matters and for seascape matters. The MMO will maintain a watching brief on this issue, as any mitigation is likely to be conditioned within the DML.

