

Able Marine Energy Park

Material Change 2

Answers to ExB's first round of written questions









Application by Able Humber Ports Ltd for Able Marine Energy Park Material Change 2
The Examining Body's written questions and requests for information (ExQ1)
Issued on 19 November 2021

The following table sets out the Examining Body's (ExB's) written questions and requests for information - ExQ1. If necessary, the examination timetable enables the ExB to issue a further round of written questions in due course. If this is done, the further round of questions will be referred to as ExQ2.

Questions are set out using an issues-based framework derived from the Initial Assessment of Principal Issues provided as Annexe B to the Regulation 27

questions are set out using an issues-based framework derived from the Initial Assessment of Principal Issues provided as Annexe B to the Regulation 2 and 28 letter of 19 October 2021. Questions have been added to the framework of issues set out there as they have arisen from representations and to address the assessment of the application against relevant policies.

Column 2 of the table indicates which Interested Parties (IPs) and other persons each question is directed to. The ExB would be grateful if all persons named could answer all questions directed to them, providing a substantive response, or indicating that the question is not relevant to them for a reason. This does not prevent an answer being provided to a question by a person to whom it is not directed, should the question be relevant to their interests.

Each question has a unique reference number which starts with 1 (indicating that it is from ExQ1) and then has an issue number and a question number. For example, the first question on proposed changes generally is identified as Q1.1.1. When you are answering a question, please start your answer by quoting the unique reference number.

If you are responding to a small number of questions, answers in a letter will suffice. If you are answering a larger number of questions, it will assist the ExA if you use a table based on this one to set out your responses. An editable version of this table in Microsoft Word is available on request from the case team: please contact AbleMarineEnergyPark@planninginspectorate.gov.uk and include 'Able Marine Energy Park Material Change 2' in the subject line of your email.



Abbreviations used:

AEol	Adverse Effect on Integrity	LIR	Local Impact Report
agl	above ground level	LPA	Local Planning Authority
Арр	Applicant	MMO	MMO
C.GEN	C.GEN Killingholme Limited	NE	Natural England
C.RO	C.RO Ports Killingholme Limited	NELDB	North East Lindsey Drainage Board
DAO	Draft Amendment Order	NLC	North Lincolnshire Council
DCO	Development Consent Order	NPS	National Policy Statement
dDCO	Draft Development Consent Order	NSIP	Nationally Significant Infrastructure Project
EA	Environment Agency	PA2008	The Planning Act 2008
EM	Explanatory Memorandum	RR	Relevant Representation
ES	Environmental Statement	SoS	Secretary of State
ExB	Examining Body	UES	Updated Environmental Statement
HMBCE	Historic Buildings and Monuments Commission for England	WFD	Water Framework Directive
HRA	Habitat Regulations Assessment	WSI	Written Scheme of Investigation

The Examination Library

References in these questions set out in square brackets (eg [APP-010]) are to documents catalogued in the Examination Library. The Examination Library can be obtained from the following link:

 $\frac{https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR030006/TR030006-000234-Able%20Marine%20Energy%20Park%20Material%20Change%202%20Examination%20Library.pdf}$

It will be updated as the examination progresses.

Citation of Questions

Questions in this table should be cited as follows:

Question reference: issue reference: question number, eg ExQ1 1.0.1 – refers to question 1 in this table.

ExQ1: 19 November 2021

Responses are due by Deadline 1: 14 December 2021 at 23:59

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ExQ1	Question to:	Question:	
1. Ques	Gene stions	ral and Cross-topic	
Q1.0.1	Арр	Please supply A3 size paper copies of all the current drawings associated with the Proposed Changes.	The Applicant has provided A3 size paper copies of the substitute drawings, and of the alternate construction sequence drawing which were submitted following the Preliminary Meeting.
Q1.02	Арр	Does the Application involve two alternative approaches to construction of the quay in cross-section, as shown on drawing AME-036-00003 rev C, or three alternative approaches as shown on drawing AME-036-10004 Rev B? Under what circumstances would each alternative proceed?	AME-036-1004 Rev B was issued as part of the preliminary environmental information. The application contained Revision C of the drawing. The two drawings are not showing different approaches, but are showing the same approaches, each with four options. The legend on plan AME-036-00003C states that the relieving slab is optional. Thus four options are possible on the basis of this plan, i.e. each of the two diagrams with or without the relieving slab. The same legend appears on plan AME-036-10004C, so that Alternative 1 on that drawing is identical to Alternative 2 without the piled relieving slab which is shaded green and is therefore optional,
Q1.0.3	Арр	Re: drawing AME-036-0003 rev C, no crane rail is shown in the Optional Design Section. Is this because the thicker RC slab would allow flexible crane location?	The rail crane has not been designed to date and will only be procured if there is a business case for its installation in the future. The rear crane rail can be expected to be behind the quay rather than incorporated into it. If it is needed, a separate application for the construction of the rear crane rail will be submitted to the LPA once the crane design has been completed.
Q1.0.4	Арр	How would the number and diameter of piles vary in the alternative approaches?	General The material change is expected to reduce the number of quay piles as the specialist berth in now omitted and that feature required extensive perimeter piling.

ExQ1	Question to:	Question:	
			Alternatives excluding the Relieving Slab The proposed amendment to the Deemed Marine Licence is included as an appendix to the Explanatory Memorandum [APP-060] (although a revised version is submitted at this deadline). Paragraph 4(1) this sets out the maximum number of quay piles and sheets permitted. The smaller the quay pile diameter, the larger the number of piles to be installed along the quay.
			Alternatives including a Relieving Slab The detailed design of the quay has not been completed, however options that include a piled relieving slab are likely to incorporate up to 2,500 additional bearing piles which may be driven or augered.
			Pile Diameter The maximum pile diameter of the quay piles will be 2.54m, pursuant to Schedule 8 paragraph 43 and the written agreement of the MMO on 15 May 2018, refer to UES Appendix 10-8.
			The use of a relieving slab would be expected to reduce the size and/or wall thickness of the quay wall piles compared to not having a relieving slab, but that is a matter for detailed design.
Q1.0.5	Арр	Is the option available of using augered rather than percussion piles to reduce noise and disturbance?	The material change is not seeking to restrict the type of piling that is already consented. The EIA is based on driven piles.
			The quay piles will be driven over water and will comprise steel tubes, no alternative augered pile solution is considered possible for these piles.
			Piles supporting the relieving slab may be augered or driven as permitted and there is no restriction on the extant DCO.
Q1.0.6	Арр	Please develop UES 16.4 to show in detail that the ES envelope related to noise and disturbance covers all piling options, whatever the number and diameter of piles.	The number of piles is irrelevant to the predicted noise envelope, the number of piles actually installed would simply affect the duration of piling, not the noise level generated during piling.
			The maximum pile diameter to be installed will be 2.54m, pursuant to Schedule 8 paragraph 43 and the written agreement of the MMO on 15 May 2018, refer to UES Appendix 10-8.

ExQ1	Question to:	Question:	
			With respect to pile numbers, the only change being sought is the option to use driven anchor piles in lieu of flap anchors which are not driven. It is explained in UES Paragraph 16.4.3 that
			'Anchor piles are shorter than quay piles and will only require driving into superficial deposits, rather than chalk (as with quay piles). The anchor piles would therefore require a smaller hammer and less energy per blow, compared to quay pile driving'.
			Less energy per blow also translates into less noise per blow and therefore the introduction of anchor piles does not materially affect the original assessment of noise and disturbance from piling. The noise assessment reported in the original ES is based on driving the much larger and longer quay piles, so remains valid.
			The impacts of piling noise on both aquatic and terrestrial receptors is mitigated by conditions and no changes to the conditions are proposed.
			Underwater Noise In relation to underwater noise, piling restrictions are set out in Schedule 8 paragraphs 37-43 of the DCO which have the effect of restricting piling activity. Further, any residual effect on migratory salmon is addressed by Schedule 11 paragraph 43(3) which the Applicant has discharged by signing a Grant Funding Agreement with the Environment Agency and the Trent Rivers Trust. It is explained in UES Paragraphs 10.3.178 et seq that these conditions fully mitigate the impacts of underwater noise on aquatic ecology.
			Noise and disturbance envelopes for underwater noise are therefore irrelevant as the impact reported in the original ES is fully mitigated by the timing restrictions on piling and by the Grant Funding Agreement.
			Airborne Noise Airborne noise contours plots from piling activities are provided in Annex F of the Applicant's original Habitats Regulations Assessment Report, here: https://infrastructure.planninginspectorate.gov.uk/wp- content/ipc/uploads/projects/TR030001/TR030001-000572-16%20- %20Habitat%20Regulations%20Assessment%20Report%20(15).pdf

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ExQ1	Question to:	Question:	
			The proposed change makes no difference to the original noise contour plots.
			In relation to airborne noise UES Appendix 16-1 further illustrates the fact that the driving of the main quay piles in the amended scheme is no closer to the most sensitive environmental receptor (North Killingholme Haven Pits) than in the original scheme. This evidences that the original assessment remains valid. Noise impacts on this particular receptor are also limited by Schedule 11 paragraph 42(3) of the DCO which also remains unamended.
Q1.0.7`	Арр	UES 16.4.3 compares anchor piles with quay piles in terms of noise and vibration. However, the comparison between anchor piles and flap piles, which they might replace, is not given. Please explain.	Flap anchors are not driven but simply lifted into place by crane, so no comparison is needed.
Q1.0.8	Арр	What uses is the site put to at present?	Refer to drawing AME-008-00088A, submitted with this response with reference TR030006/D1/2.
Q1.0.9	Арр,	Will the Able Marine Energy Project	Build Out
	C.RO, C.GEN	•	In the context of addressing the extent that the consented scheme will be 'built-out' it is necessary to distinguish between the quay and landside elements.
			The quay, which constitutes the nationally significant infrastructure project, including the commensurate compensation and mitigation works, will be fully built-out in accordance with the extant DCO or proposed MC2, if consented.
			Since the original DCO application in 2011 to the present time, the offshore wind sector has seen significant change. This is largely characterised by the increased scale and output of turbines and their supporting foundations. The pace of change means that the associated industrial development proposed in 2011 (now ten years ago) is no longer fit for purpose despite the use of a 'Rochdale Envelope' approach. Accordingly, new industrial development will be brought forward under the provisions of TCPA 1990, and an environmental impact assessment of those projects will be undertaken at that time. By way of example, the Applicant has made a recent application for a monopile manufacturing facility on the former Mitigation Area A (NLC

ExQ1	Question to:	Question:	
			planning reference PA/2021/1525). Further applications for industrial development will be brought forward in due course.
			Implications of Mixed retained, alternative, or interim uses on other parties
			With regard to any interim stages of the development, it will be appreciated that such large developments as AMEP do not displace existing development, (in this case the existing car storage activities), overnight. Accordingly, it was always the case that existing and consented development would be operating side by side for a period of time, and that existing development would be gradually displaced as AMEP is built out. This is not only obvious from the scale of the development but is also evidenced by Schedule 11, paragraph 3 of the DCO, which requires the stages of the development to be approved by the local planning authority before any development commences.
			There appears to be no plausible stage during the development of AMEP, where the environmental effects of a partially completed AMEP would be more extensive than those pursuant to the development of the whole. Such a conclusion does not need detailed expert analysis of each topic but is plain from the nature of the existing development compared to the proposed development.
			Accordingly there are no foreseeable implications on other parties of phasing the works.
Q1.0.10	Арр	What phasing timetable is envisaged for the construction of the project and how would this relate to retained uses?	Phasing Timetable
			In January 2018 wet grassland was developed at Halton Marshes pursuant to planning permission PA/2016/649 granted by North Lincolnshire Council (NLC). In May 2021, the SoS confirmed the Applicant's non-material change application in respect of the DCO to re-site Mitigation Area A from Killingholme Marshes to Halton Marshes.
			The Killingholme Marshes Drainage Scheme, including the pumping station, commenced in Q2 2021 and will be completed Q3 2022.
			The Cherry Cobb Sands Regulated Tidal Exchange works will commence 7 months prior to the main quay works, pursuant to Schedule 11 paragraph 21 of the DCO.

ExQ1	Question to:	Question:	
			Cherry Cobb Sands Wet Grassland, which is consented under the TCPA by East Riding of Yorkshire Council, will commence prior to the main quay works.
			The development of the land and buildings linked to the manufacturing and storage of offshore wind components will be a function of tenant requirements. Whilst this is, in part influenced by the Contract for Difference allocation process for offshore wind development, interested parties have indicated that first components will be produced during the window of Q4 2023 to Q4 2024.
			Retained Uses
			The site will see continuing use for the consented vehicle storage and distribution activities during the first phases of the associated development. These uses will continue until such a time as offshore wind related demand causes it to be displaced. In such a circumstance the existing activities would be re-located to the neighbouring land at Able Logistics Park (NLC planning references PA/2015/1264).
Q1.0.11	Арр	How would this be affected by the various cross-sectional approaches, the proposed constructional sequence, the addition of a third cross dam within the reclamation	The proposed material change will have no impact on the phasing of the works described in response to Q1.0.10. Staged handover of the quay by the Contractor is envisaged during the construction period but the construction period will be continuous.
		area, and the possibilities of staged handover?	
Q1.0.12	Арр	UES 4.3.6, has agreement been reached with Anglian Water concerning diversion of the two	Yes, although the relocation of Anglian water pipelines is not part of the material change application
		pipelines within the footprint of the reclamation area?	The Applicant has regular meetings with Anglian Water (AW) who will be applying to the Environment Agency to obtain permission for the new outfall. AW expect to receive the Consent for a new outfall in Q3 2022.
Q1.0.13	Арр	UES Table 4-3 indicates that the loss of saltmarsh would increase from a figure of 2ha agreed with NE in 2012 to 8.1ha assessed in UES	The figures in UES Table 4-3 were incorrectly transcribed from UES Appendix 11-2, paragraph 3.4.1, '8.1' should have read '8.6'.

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ExQ1	Question to:	Question:				
		Appendix 11-2. However, this does not appear to correlate with the figures in Table 13 of the HRA Part 1 Report. Why is this?	Table 13 of the HRA Part 1 report includes a breakdown of the areas affected by the development. These areas are the same as those set out in UES App 11-2 except that a 2.2ha area of indirect functional loss comprising mudflat with scattered saltmarsh is identified as habitat type 1140 (mudflat) in UES App 11-2 but as 1310 (mudflat with pioneer saltmarsh) in the HRA Part 1 Table 13. The correct designation for the 2.2ha area of scattered saltmarsh is habitat type 1310. In the interests of clarity, UES Appendix 11-2 and the HRA Report are both revised and resubmitted with these responses, with references TR030006/D1/3 and TR030006/D1/4 respectively. UES Table 4-3 is amended as set out below			
				Habitat Type	Habitat Loss Arising from Consented Scheme Agreed with NE in 2012 ¹ (ha)	Habitat Loss with Material Change (ha) (Technical Appendix UES11-2)
				1130 Sub-tidal	13.5	10.4
				1140/1310 Mudflat/Pioneer Saltmarsh	43.1	39
				1330 Saltmarsh	2	8.6
				¹ Refer to SoCG, Ta	able 3.2 and paragraphs 3.5.1 -3	3.5.21
Q1.0.14	Арр	UES Table 4-4 shows a reduction in operational phase vessel movements because of the				foundations, see image below, which are no nopile foundations dominate the sector.

 $[\]frac{^{1}\text{https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR030001/TR030001-001606-}{SOCG009\%20TR030001\%20Able\%20Humber\%20Ports\%20Ltd\%20Statement\%20of\%20Common\%20Ground\%20with\%20Natural\%20England\%20and\%20the\%20Marine\%20Management\%20Organisation.pdf}$

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ExQ1	Question to:	Question:	
		omission of Foundation Transfer Vessel movements. Please explain.	
Q1.0.15	App, NLC	UES 3.3.6/7, Please set out relevant policies of the Local Development Framework and the saved policies from the Local Plan (2003) which are extant.	Refer to separate report, 'Additional Technical Note – Planning Policy', issued with this response with reference TR030006/D1/5.
2. (DAC		Draft Amendment Order	
Q2.0.1	Арр	Please supply the existing DCO overmarked with the changes arising from the DAO.	A marked up copy of the DCO has been supplied by the Application at deadline 1 with reference TR030006/D1/6.

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ExQ1	Question to:	Question:	
Q2.0.2	Арр	Should the Explanatory Note attached to the DAO be updated in accordance with paras 2.6.1 to 2.6.6 of the separate Explanatory Memorandum dated June 2021 rev 1?	The Applicant does not consider it would be appropriate for the text at paragraphs 2.6.1 to 2.6.6 of the Explanatory Memorandum to replace the Explanatory Note attached to the DAO. The text at paragraphs 2.6.1 to 2.6.6. of the Explanatory Memorandum reflects the description of the proposed changes set out in the UES, and includes changes which would be permitted through a variation of the deemed marine licence (DML) by the Marine Management Organisation, as well as those which would be permitted by the DAO. The Explanatory Note summarises only those changes which would be permitted by the DAO i.e. the consequential changes to dredging resulting from the new alignment of the quay and the new positioning of the berth and turning circle.
Q2.0.3	App, MMO	Has an application for a variation to the deemed marine licence (DML) been submitted? Please report on progress.	The Applicant has submitted an application to vary the DML in accordance with MC2 (DML Variation 4). However, that application is on hold by MMO pending the determination of another variation related to the pumping station works (unrelated to MC2). A copy of the DML Variation 4 application is submitted with this response with reference TR030006/D1/7.
Q2.0.4	App and other parties	Are new, additional, or amended protective provisions envisaged. Please report on progress in negotiations with the various parties.	No. The material change proposed does not give rise to any need to vary existing Protective Provisions.
Q2.0.5	Арр	How is the proposed footpath diversion covered in the DAO?	Paragraph 5 of Article 2 of the DAO substitutes a number of the planning and design drawings in accordance with which the Applicant is required to construct the project under paragraph 6 of Schedule 11 to the DCO. This includes the substitution of two drawings showing the original footpath diversion (AME-02010 (Rev B) and AME-02011), with drawings showing the new footpath diversion (AME-036-20004 (APP- 019) and AME-02011 (Rev C) (APP-017)). The DAO changes the references in paragraph 6 of Schedule 11 of the DCO to reflect the fact that these drawings have been substituted. The relevant Rights of Way Plan (sheet 5 – APP-052) has been amended and was also submitted with the application.

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ExQ1	Question to:	Question:	
Q2.0.6	Арр	How would the Order Limits be affected by the proposed footpath diversion and by the re-siting of the Mitigation Area A? Should the Order Limits include the Killingholme Branch Line, since it would not be subject to development works?	The re-siting of Mitigation Area A, and associated change to the Order limits, has already taken effect through the AMEP Development Consent (Amendment) Order 2021. The Order Limits are not affected by the footpath diversion. Although the Killingholme Branch Line is within the Order limits, it is not generally within the Order Land, refer to the approved Land Plans. In short, save for four discrete parcels of Network Rail land that remained in the Order Land (to enable the Applicant to acquire easements to cross the land at those points) the area was removed from the Order Land following Network Rail's objections to its inclusion the original application in 2012. There are several parcels of land within the Order limits, such as the Lookout (a former residential property now acquired by AHPL), that could at this stage be removed from the Order Limits but doing so would serve no obvious purpose.
3. Oper	3. Operators and Harbour Operations		
Q3.0.1	App, C.RO	Please summarise the methods by which co-ordination of river traffic would take place, in the context of slower moving dredger and deposition vessels, and possible shortage of pilots. How would vessels be prioritised? How would arrangements be secured?	Priority of Vessels AHPL would comply with the existing requirements for vessel movements in the Humber and the additional conditions of the DCO. Specifically: Schedule 8, Deemed Marine Licence Part 4 Conditions, General Conditions, Para 16 "No licensed activity is to be carried out until 4 weeks after a vessel movement management plan has been agreed in writing by the MMO, and the licensed activities must be carried out in accordance with the vessel movement management plan." Schedule 9 Protective Provisions Part 1 For The Protection Of The Humber Conservancy Para 3 (1) Before Para 3 (1) (b) agreeing a vessel movement management plan with the MMO under paragraph 16 of Schedule 8 (deemed marine licence) the Harbour Authority must submit to the

ExQ1	Question to:	Question:	
			Conservancy Authority plans and sections of the tidal work or operation and such further particulars as the Conservancy Authority mayreasonably require.
			Part 6 For The Protection Of C.Ro
			Para 66 (1) The undertaker must not allow vessels associated with the construction of the authorised development to obstruct or remain in the approach channel when vessels are arriving at and sailing from HST.
			(2) C.RO must provide the undertaker with a schedule of movements to which sub- paragraph (1) applies on a weekly basis and must give the undertaker reasonable notice of any changes to scheduled sailings or other vessel movements of which it has informed the undertaker.
			Securing The Arrangements
			The contract with the dredging contractor will include provisions that;
			1) The dredging vessels will not obstruct or remain in the approach channel when vessels are arriving to and sailing from the HST.
			2) They will produce a vessel movement management plan for approval of Able UK and to the satisfaction of the MMO. Further that this plan will comply with the terms of the DCO, with respect to content, consultation and notice periods.
			Part of this plan will be to arrange dredging priorities and locations around the advised schedule of movements provided by C.Ro (and from time to time updated), so that operations in or near the approach channel will be scheduled to take place when no movements at C.Ro are planned. At such times the dredging schedule and vessel movements will be arranged (or modified) so that the dredge vessels are either at or transiting to or from the disposal grounds, or working alongside the Able facility and in either case clear of the anticipated C.Ro traffic.
			3) Communication procedures are to be established with C.Ro (and their vessels), so that information is shared and arrangements regarding vessel movements (dredging and C.Ro) are established.
			This is so that sufficient notice may be given to the dredging vessels in order for them to be clear of the HST approach channel when required. This recognises that the C.Ro weekly

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ExQ1	Question to:	Question:	
			schedule, is likely to change at short notice. This could be for many reasons such as (but not limited to) bad weather, late cargo, or mechanical issues.
			These arrangements will be shared with the Conservancy Authority.
			<u>General</u>
			It should also be noted that, regardless of any agreement made between the Applicant, the Dredging Contractor and C.Ro Ports or the individual vessels, Humber Conservancy Authority through its Harbour Master and Humber VTS has primacy for managing the movement of vessels.
			<u>Pilotage</u>
			In their response to the statutory consultation on the preliminary environmental information carried out by the Applicant, ABP highlighted the fact that estuary pilots are a finite resource with very little spare capacity during busy times so additional movements of dredgers may need forward planning – such as greater use of pilotage exemption certificates."
			Any possible shortage of pilots will be mitigated by;
			1) The Applicant intends to make the use of PEC certificates a requirement of the dredging contract.
			This by a clause to the effect;
			"The contractor will make all reasonable endeavours to ensure that masters (and other officers as relevant) of dredging craft who would normally require a pilot, obtain an appropriate Pilotage Exemption Certificates (PEC) as soon as reasonably practical."
			It should be noted that the granting of a PEC is entirely within the gift of the Conservancy Authority, and certain defined conditions need to be met to satisfy the requirements.
			2) The dredging programme will be conducted in phases.
			The various areas, required depths and soil conditions means that not all dredging equipment will mobilised simultaneously. It will be staged.

ExQ1	Question to:	Question:	
			At the construction contract award stage, a plan for the various stages of mobilisation will be produced by the dredging contractor and this will be shared with the Conservancy Authority. This should help them plan resources and make suggestions as to how peak demand may be managed.
			If there are times when resources are stretched it will be up to the Conservancy Authority to determine the most efficient way of managing such resources.
Q3.0.2	App, C.RO	What types of vessel would use the berth bay?	It should be noted that Schedule 11 paragraph 4 of the extant DCO limits the type of cargo that can be brought over the quay.
			Any cargo or installation vessel associated with the offshore renewable energy industry may use the berth bay. An example of a offshore wind turbine jack-up installation vessel currently operating from the Applicant's facility at Able Seaton Port, and also likely to use AMEP, is the Wind Osprey, image below:

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ExQ1	Question to:	Question:
		An example of an offshore wind turbine delivery vessel currently operating from Able Seaton Port, and likely to use AMEP, is the Boldwind, image below:

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ExQ	Question to:	Question:	
			In addition to these examples, any vessels requiring an "end-on" load or discharge will be berthed at this location. This would primarily be a • Specific class of windmill blade vessels (e.g. "Rotra Mare" and its sister vessel), • Barges that require loading over the bow or stern. It is also possible that occasional standard Ro-Ro vessels may be chartered to handle the cargo that the facility is permitted to handle (Blades, Nacelles etc).
		What frequency of movement would occur and how would this interact with C.RO and other operator's vessel movements?	It is firstly worth highlighting that Chapter 14 of the UES concluded that "all residual effects for the amended project were assessed as Moderate or Low and therefore 'not significant'', (UES paragraph 14.9.3).

ExQ1	Question to:	Question:	
			The Applicant's best estimate is that this berth would handle approximately 1/6 th of the anticipated overall berth traffic of 250 vessels per annum (500 movements on and off). Namely 83 movements per annum or one movement every 4-5 days.
			Although this inset berth is slightly nearer to the C.Ro berth than others, it is also inset, so the available width of channel is greater when the vessels are "on-berth", and no less when manoeuvring on and off.
			The Applicant does not anticipate that use of this berth will affect C.Ro's operations negatively in comparison to the consented quay design. It is intended to model such interactions (C.Ro vessels passing, Able Vessels berthing and leaving this berth), at the next stage of marine simulations on 6 January 2022.
Q3.0.3	App, C.GEN	Please set out, or fully signpost, the anticipated environmental impact of the works on C.GEN's infrastructure, including the pumping station and cooling water intake/outfall. (Although the permit has been surrendered, I understand North Killingholme Generating Station could make use of it, (UES 6.3.3). Please describe proposed monitoring and mitigation during construction and operation.	At the time of the original application the pumping station was owned and operated by Centrica and Protective Provisions for the former owner are set out in Schedule 9 Part 10 of the extant DCO. In its relevant representation (RR-013) C.GEN states that it now benefits from these Protective Provisions. The original assessment of impacts on the former Centrica intake and outfall was reported the original ES at Appendix EX8.8. The original assessment has been reviewed and the review is reported in UES Chapter 8, see for example paragraphs 8.4.12, 8.4.16 and 8.4.67 (APP-079). In short, the proposed material change is predicted to be beneficial compared to the consented scheme. Pursuant to Schedule 11 paragraph 36, a monitoring plan has already been approved by the MMO and is issued with this response along with the MMO approval with reference TR030006/D1/8.
Q3.0.4	App, C.GEN	Would related easements and rights be affected? Please confirm existing or agree modified protective provisions as appropriate.	Regarding the intake/outfall, the Applicant notes that the Environment Agency has confirmed the following: 'A site closure plan was submitted to the Environment Agency and the Permit surrendered on 18 September 2017 there is no longer any valid permit for the operation of this intake/outfall' (underline added, e-mail Hewitson (EA)/Cram (Applicant), 22/3/21).

ExQ1	Question to:	Question:	
			With regard to onshore pipelines, the Applicant understands that CGEN has acquired the former Centrical easement that protects the pipelines passing through the AMEP site. The Protective Provisions in Schedule 9 Part 10 of the DCO are for the benefit of Centrica. As noted above, C.GEN now owns the former Centrica power station, and states in its relevant representation that it has inherited the benefit of these protective provisions. That being the case (), the Applicant has been treating C.GEN as benefitting from those protective provisions. For example, before construction of the AMEP surface water pumping station commenced, the Applicant agreed a Construction Method Statement (CMS) with C.GEN to protect the former Centrica apparatus in accordance with the extant protective provisions in favour of Centrica.
Q3.0.5	C.RO, App	Please set out the details of any potential additional impacts on C.RO's operations arising from the Proposed Changes during construction and operation.	UES Chapter 8 paragraph 8.4.76 explains that the amended quay layout is predicted to slightly reduce annual siltation into C.RO berths by 29,000 wet tonnes per year. This compares to an existing average annual disposal quantity of 503,000 wet tonnes per year for the period 2016 to 1019. UES Chapter 14 concludes that "all residual effects for the amended project were assessed as <i>Moderate</i> or <i>Low</i> and therefore 'not significant".
			During construction of the quay the proposed change is not expected to cause any detrimental change to the impact on C.Ro's operations as the number of dredge vessel movements is expected to be, to all intents and purposes, the same as in the consented scheme During operation, the quay itself will be within the original footprint and so does not extend any further into the channel or any closer to C.RO's access. Further navigation simulation exercises are planned to be undertaken on 6 January 2022 in the presence of C.RO and the Harbour Master.
Q3.0.6	C.RO, App	Are these impacts covered by existing protective provisions? If not please agree amended provisions.	C.Ro benefits from protective provisions contained in Schedule 9 Part 6 of to the DCO. Given that the impacts on C.Ro are not reported to change as a result of the proposed material change (see above), the Applicant does not consider that any amendments are needed to the protective provisions.

ExQ1: 19 November 2021
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ExQ1	Question to:	Question:	
Q3.0.7	Арр	In their consultation response dated 19.5.21, National Grid note the proximity of the proposed development to Tower 2AJ006 and the associated overhead line. They requested more detail of work proposed near its assets and sought confirmation regarding protective provisions. Have these points been resolved?	These points have been resolved. Refer to image of email below: RE: EXT AMEP MC2 : National Grid Response to Consultation on Scoping Opinion Holdsworth. Anne To Reply Sephy All Forward Wed 24/11/2021 1306. CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe. Richard Further to our conversation and the email below, I confirm that we agreed that the proposed material changes do not affect any NG apparatus – the area adjacent to the NGET assets, which falls outside the area of the proposed material changes, was covered in the original DCO approval and Protective Provisions were agreed at that time. I trust is sufficient for you to respond to the Examiner. Kind regards Anne Anne Holdsworth DCO Llaison Officer Land and Acquisitions, Land and Property national grid
Q3.0.8	Арр	Re, Commercial and Recreational Navigation, Table 14-10: Further Embedded Mitigation Measures, and Table 14-11: Possible Alternate or Additional Risk Control Measures – how would it be decided whether and when to use these measures? How would they be secured?	Further Embedded Mitigation Measures Table 4-10 UES Paragraph 14.5.5 explains that: 'further embedded mitigation measures having an impact upon the reduction of navigation risk that are already in place or required by the port authority, but which were not specifically considered in the original ES are outlined in Table 14-10', (underline added) These measures are therefore already in place and do not need securing separately.

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ExQ1	Question to:	Question:	
			Alternate or Additional Risk Control Measures, Table 14-11
			Schedule 9, paragraph 20 of the extant DCO requires the Harbour Authority to submit to the Harbour Master a written statement of proposed safe operating procedures. Any additional mitigation measures may be agreed with the Harbour Master and secured through these procedures.
		odynamics and Regime including Dredging n	
Q4.0.1	App, EA, MMO	Please respond to the EA's, MMO's and other parties' concerns set out in their RRs and report on the current state of agreement.	Please refer to the separate document responding to the RRs submitted at Deadline 1.
Q4.0.2	Арр	UES 8.4.4 states that the location of the dredge disposal sites HU080, HU081, and HU082 is provided on drawing AME-036-10014 in Appendix UES4-1, but this does not appear to be the case. Please provide an updated drawing.	Please refer to Figure A7.6 in UES Appendix 4-2, which provides these.
Q4.0.3	Арр	Hydrodynamic changes at Hawkins Point arising from deposition: Please explain the choice of wave conditions in modelling. Why was only one wave condition chosen (UES 8.4.34)? Please explain why present-day conditions were chosen in the assessment rather than	Please refer to paragraph 3.5 to 3.10 and Schedule 1 of the signed SoCG with the EA, TR030006/D1/SOCG/EA, submitted at Deadline 1, which addresses the Hawkins Point issues.

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ExQ1	Question to:	Question:	
		conditions reflecting future rise in sea level. • Please clarify the projected impact of increasing wave activity on erosion west of Hawkins Point and the risk to habitat and flood defences.	
Q4.0.4	Арр	Regarding the additional mitigation set out in UES 8.5.2 required by the EA: • How long is monitoring to continue? • How will the monitoring results be assessed and acted upon and in what time frame? • What remedial action is to be taken if the risk is realised? • What programme of bespoke LIDAR services is intended and how would they be integrated with the bathymetric surveys? • What additional mitigation is available and under what circumstances might it be used? • How are these aspects to be secured?	Details on the additional mitigation required by the EA are set out in Schedule 1 of the SoCG agreed with the EA (TR030006/D1/SOCG/EA) and will be secured through a revision of the approved MEMMP.
Q4.0.5	Арр	Dredging, UES 8.4.1 et seq:	Dredging operations are controlled under the Deemed Marine Licence, refer to paragraphs 11, 12 and 32-69 of Schedule 8 to the DCO.

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ExQ1	Question to:	Question:	
		What time periods would	Capital Dredging
	24hr day, during what pe the construction and	dredgers be at work during the 24hr day, during what periods in the construction and maintenance programmes, and	Dredging would take place in a series of campaigns during the construction of the quay. An indicative schedule of capital dredging campaigns is included in Table 3 of the NRA at UES Appendix 18-1.
		for how long overall? • Please summarise the risks of disturbance to wildlife through noise, turbulence, lighting, etc.	In accordance with normal practice dredging plant will operate 24 hours per day, subject to environmental monitoring during the works, the approved Dredge and Disposal Strategy (pursuant to Schedule 8 Condition 45) and the approved Method Statement (pursuant to Schedule 8 Condition 31).
			Maintenance Dredging
			The maintenance dredging campaigns are difficult to predict with certainty as it is dependent on the actual rate of infill into the new berths, the actual vessel drafts being utilised during specific years, berth utilisation and the possible establishment of an equilibrium level of sediment in the berth. UES paragraph 8.4.77 quotes a range of 210,000-520,000 dry tonnes per annum which is lower than the amount predicted in the original ES.
			<u>Impacts</u>
			In respect of impacts, it should be borne in mind that maintenance dredging is already routinely undertaken at the adjacent berths as detailed in the latest Humber Maintenance Baseline Document, so wildlife is habituated to dredging activities. Construction phase effects from dredging activities are reported in UES Chapter 10, paragraphs 10.4.3 <i>et seq.</i> Paragraph 10.4.87 reports that there will be no change as a consequence of dredging operations on wildlife pursuant to the proposed change. Plainly maintenance dredging impacts will be the same.
Q4.0.6	Арр	Have the impacts of the various dredging processes on the Uniper and C.GEN intakes and outfalls been assessed?	These have been assessed and are included in UES Chapter 8 as follows:
			For Backhoe dredging , refer to paragraph 8.4.7-8
			For TSHD, refer to paragraph 8.4.12

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ExQ1	Question to:	Question:	
Q4.0.7	Арр	UES 9.5.2, How would the commitment to carry out ongoing maintenance dredging at discrete intervals to prevent sedimentation at the intakes be monitored, managed and secured?	For CSD refer to paragraph 8.4.20. Schedule 11 paragraph 36 already requires 'a scheme for the monitoring of sedimentation along the lines of and in front of Centrica and E.ON cooling intakes and outfalls (to be) submitted to and approved by the MMO in consultation with the Environment Agency, Centrica plc and E.ON.' The scheme was approved by the MMO on 10 July 2019, following consultation with C.GEN and Uniper. A copy of the approved document and the approval notice is included with this response with reference TR030006/D1/8.
Q4.0.8	Арр	Capital dredge disposal, UES 8.4.27 notes, 'In reality it would not be possible to place this full amount of material into the site' This implies that some excavated material would be placed elsewhere, besides the site identified in the Estuary. Please clarify.	Such an implication is unintended; the paragraph is simply drawing a distinction between theoretical capacity and practical capacity. The theoretical capacity is based on the deposited material forming a perfectly flat surface at -5.3mCD, whereas in practice the deposits will form heaps with a maximum height of less than -5.3mCD, resulting in an undulating surface below water. Consequently, the theoretical capacity cannot be realised in practice, see graphic below. 5.300m CD Profile of dredged deposits Theoretical Capacity The practical rather than theoretical capacity of the sites has been used as the basis of the dredging strategy and they can accommodate all of the proposed excavated material.
Q4.0.9	Арр	Ebb flow tide acceleration, UES 8.4.73:	UES Chapter 8 paragraph 8.4.44 explains that the spatial extent of speed increase on the ebb tide is smaller than in the consented scheme and moves slightly inshore. The impacts of the consented and the proposed schemes are illustrated in Figures 8-23 and 8-24. No significant consequences are predicted to arise and no mitigation is proposed.

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ExQ1	Question to:	Question:	
		 What would be the effects of the projected increase in the worst scenario? What mitigation is in place to counteract these effects? 	
Q4.0.10	Арр	Please comment on MMO's advice that plough dredging should be added to the list of formal mitigation measures should it be required as a last resort following monitoring of disposal activities.	In its application for a variation to the deemed marine licence, the Applicant will make provision for plough dredging to be carried out if required.
Q4.0.11	Арр	UES Table 8-1: Scoping Opinion: 4.2.1 para 6.10 - Has the Applicant agreed the approach to wave modelling with the relevant consultation bodies?	The agreed SoCG with the EA (TR030006/D1/SOCG/EA) sets out the approach that has been agreed to wave modelling and has been agreed with them.
Q4.0.12	Арр	UES 9.6.2, second and third bullets, overflowing during the trailing suction hopper dredger (TSHD) dredging of alluvium - overflowing for ten minutes on every load would result in increases in suspended sediment concentration of up to 630mg/l compared to 45mg/l without overflowing. How would overflowing be controlled? What would be the consequences of overflowing on biodiversity?	The Applicant notes the Panel's findings in 2012 regarding dredging impacts: 'The impact of capital and maintenance dredging would be primarily, if not exclusively on subtidal habitat rather than on inter-tidal mudflats. The sub-tidal habitat affected is not of particular ecological importance in itself and its loss or degradation is not likely to be of great significance in terms of the features of interest of the SAC. The proposal is a marginal change in comparison with the extent of dredging currently but there remains a possibility of in combination or cumulative effects Disposal of dredged material is managed and monitored. Locations for disposal of dredged material can be selected to minimise adverse effects on benthic communities while maintaining the sediment balance within the estuary. Because there would be additional dredging adding to existing dredging in the estuary there is a possibility of in combination effects over long term.

ExQ1	Question to:	Question:	
			The dynamic situation in the estuary means that when it comes to indirect effects it would be difficult to disentangle the impact of the proposal from other influences on the river', (paragraph 10.79).
			And,
			'We can be sure that the River Humber eco-system will change, with or without human intervention. Predicting the nature and extent of that change with any degree of precision, however, seems to the Panel, to be a more-than-human skill.
			This is not to undervalue the knowledge or professional and technical skills that has been displayed en masse during the examination. But the Panel is firmly of the view that the correct response to this dynamic environment is a monitoring and management system that respects and reflects it. This follows the EU Guidance on Managing Natura 2000 Sites and the draft DEFRA Guidance', (paragraphs 10.200 – 201)
			With those findings in mind, the Applicant also notes that overflowing from the TSHD is not part of the material change proposed by the Applicant, it was assessed in the original ES and the assessment has merely been updated. The second and third bullets therefore do not refer to additional effects resulting from the proposed material change, but to an updated assessment. Refer for example to ES Chapter 8 paragraph 8.6.2 which reports the original assessment of suspended sediment concentrations with overflow.
			The impact of elevated suspended sediment concentrations was reported in the original ES Chapter 10, paragraph 10.6.20, which stated:
			'There is high natural variation and range in suspended sediment concentrations in the Humber Estuary. This may be in part due to regular sediment disturbance, such as dredging and sediment disposal, that occurs frequently in the Humber Estuary as part of other projects and ongoing maintenance dredging. Recent measurements at the Humber Sea Terminal (to the north of the AMEP) give a range of 200 mg/l to 1,600 mg/l (IECS, 2010). Concentrations are even greater further upstream. Therefore increases in sediment concentration due to dumping and the likely concentrations during dredging are within the general range of suspended

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ExQ1	Question to:	Question:	
			sediment concentrations found in the Humber and no significant impacts to the water column habitat are expected' , (emphasis added).
			Overflowing will only occur once the TSHD is full and sediment laden water overflows. This is how TSHDs routinely operate in order to maximise efficiency and reduce the number of trips required. Overflowing stops once the dredger stops dredging and then travels to the deposit ground.
			The natural variability of suspended sediment concentrations (SSCs) in the vicinity of the development is further reported in UES Chapter 9, paragraph 9.3.7, with maximum values of 3 033mg/l recorded, similar to those originally reported (ES Chapter 8 paragraph 8.5.12). It is very unlikely that dredging will give rise to SSCs outside the normal range and monitoring will be undertaken to ensure this outcome (DCO Schedule 8 paragraph 39).
			The natural variability of the Humber Estuary is further described in UES Chapter 10 paragraphs 10.3.1 et seq. together with the fact that species present in the estuary are plainly tolerant of this highly variable and dynamic system. Accordingly, UES Chapter 10, paragraphs 10.4.3 et seq, reports that dredging will have no significant impact on species, see for example UES paragraphs 10.4.69 for the effect on fish. The short term
5.	Biodi	versity	
Q5.0.1	NE	Is NE content with the particular qualifying features of the Humber Estuary Special Protection Area (SPA), Humber Estuary Special Area of Conservation (SAC) and Ramsar sites for which the Applicant has identified a Likely Significant Effect (LSE) and taken forward for appropriate assessment? If not, please explain why.	Left blank by the Applicant

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ExQ1	Question to:	Question:	
Q5.0.2	NE	The ExB notes NE's position in its RR that an Adverse Effect on Integrity (AEoI) cannot be ruled out, but that it considers this is due to lack of information and is capable of being overcome with further information. On a without prejudice basis, if these matters can be overcome, does NE agree with the App that there would be no harm to any European sites from the project in combination with other plans or projects? If not, please explain why.	Left blank by the Applicant
Q5.0.3	App, NE	Please respond fully to the points made by NE in their RR dated 23.8.21, particularly section 2.3 and Part II generally. Please report on progress towards agreement.	AHPL submitted a revised sHRA to NE on 26 October 2021 to address these comments and is awaiting their response. A draft SoCG between the Applicant and Natural England is submitted at Deadline 1, and reflects the current progress towards agreement between the parties.
Q5.0.4	Арр	The HRA Part 1 Report, at 9.13, identifies LSE to the estuarine habitat, intertidal mudflat, saltmarsh, grey seal, sea lamprey and river lamprey qualifying features of the Humber Estuary SAC. Please provide justification for concluding an absence of LSE for the remaining qualifying features (H1110 sandbanks, H1150 coastal lagoons, H2110 embryonic shifting dunes, H2120 shifting dunes,	H110 The location of habitat types H1110 has been extracted from the MAGIC website and is shown on AME-036-30006 provided with this response with reference TR030006/D1/9. It is evident from the plan, that the quay works do not impact on this habitat type. Whilst the disposal sites are partly located over H1110, these are existing consented and active sites and therefore form part of the existing baseline environment. In relation to other habitat types, The English Nature Report, 'The Humber Estuary: A Comprehensive Review of its Nature Conservation Interest', provides authoritative evidence.

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ExQ1	Question to:	Question:			
		H2130 fixed dunes, and H2160			
		dunes).	H2110, H2120, H2130 AND H2		
			estuary, most notably on Spurr landmass at the point. More ext from Cleethorpes southwards. A ridges by land claim on the Nor There are smaller areas of dune Welwick in Spurn Bight there drainage of Sunk Island and at elements of dune vegetation.	e outer Humber on both the north and a Peninsula where dunes cap a beach tensive dune systems are present along a substantial relic dune ridge is separated the Lincolnshire coast between North So e vegetation at Easington Lagoons on the is a relic dune system formed before other points around the margins of the	and form a substantial the Lincolnshire coast from the active coastal mercotes and Saltfleet. The Holderness coast. At the embankment and outer estuary there are
				e <i>Humber Estuary. UK'</i> IECS, 2008, prov lumber Estuary, see extract below.	vides a helpful overview
			Table 1.7: Location and extent of Allen et al., 2003).	coastal sand dunes within the Humber Est	uary (source:
			Туре	Key Sites	Estimated extent (ha)
			Embryonic shifting dunes	Spurn Peninsula, Easington lagoons, North Somercotes	27.34
			Shifting dunes along the shore with Ammophila arenaria (white dunes)	Spurn Peninsula	30.67
			Fixed dunes with herbaceous vegetation	Spurn Peninsula	45.08
			Dunes with Hippophae rhamnoides	Cleethorpes, Spurn Peninsula	134.33
			Humid dune slacks	Skidbrooke	4.44
			Other NVC communities	Spurn Peninsula, Easington lagoons, Lincolnshire coast from Cleethorpes to Mablethorpe with relic dunes found at Welwick and between North Somercotes and Saltfleet	55.34
			Total		297.20
			It can be seen that these habita	ts are too remote from the AMEP works	to be impacted.

ExQ1	Question to:	Question:	
		T E N	H1150 Coastal Lagoons The same report also provides a helpful graphic of the coastal lagoons within the Humber Estuary which is also extracted below. The only feature of this type proximate to the works is North Killingholme Pits, but the works will not physically affect that habitat. Vettor Videor Certified
			Figure 1.14: Distribution of key coastal lagoon habitat in the Humber Estuary (Allen <i>et al.</i> , 2003).

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ExQ1	Question to:	Question:	
Q5.0.5	Арр	Humber Estuary SAC: has an AEol been ruled out for Atlantic sea meadows (<i>Glauco-Puccinallietalia maritimae</i>)? Please signpost to the relevant information supporting the conclusions reached.	Atlantic Salt Meadows are defined as Habitat Type 1330. UES Table 4-3 updated in response to Q1.0.13 shows the impacts on this habitat assessed in 2011 and at the current date. As in the original HRA adverse effect on integrity could not be ruled out for this habitat, as set out in the updated HRA Report Part 2 Table 12. Details of the updated habitat loss is given in Table 11. Also refer to 'HRA Integrity Matrix 5: Humber Estuary SAC summary of effects on site integrity' in the RIES Matrices.
Q5.0.6	Арр	In Appendix 4 of the HAR Assessment Report Part 1, please distinguish between the risk of effects on birds at Killingholme Foreshore and at North Killingholme Haven Pits, consistent with the way the Bird Data tables have been assembled. Please also highlight the significant changes between the data in the ES and those in the updated analysis.	Refer to response to Q5.0.3. The HRA Part 1 report has been updated to reflect all these points raised in consultation with Natural England.
Q5.0.7	Арр	A LSE has been identified for river and sea lamprey and grey seals in the Humber Estuary SAC. Table 12 in the HRA Part 2 Report confirms that there would be no change to the previous conclusion of no AEol. Please justify this statement.	With regard to river and sea lamprey, refer to the original sHRA, Section 6.5. With regard to Grey Seals, refer to the original sHRA paragraphs 5.4.25 <i>et seq</i> . The proposed Material Change 2 would not result in any significant change in the impacts on these three species during construction or operation, so the previous conclusion of no AEol remains (refer to UES Chapter 10 paragraphs 10.4.63, 10.4.80 and 10.6.2).
Q5.0.8	App, NE	Does NE agree with the Applicant's conclusion of no AEoI for the grey seal, sea lamprey and river lamprey?	Left blank by the Applicant

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ExQ1	Question to:	Question:	
Q5.0.9	App, NE	The HRA Part 1 Report, at 9.6, notes that LSE was excluded in respect of the effects of lighting on the remaining intertidal habitats at KMFS. Is this conclusion still valid, given the probable lighting requirements for tall structures such as the 200m cranes? Please comment on the potential for visual disturbance to Humber Estuary and Ramsar bird features.	Lighting lux levels for the consented scheme were reported in the original ES in Appendix EX19- 1. The slightly higher crane will make no difference to the lighting levels on the ground along the KMFS as the lighting levels there are governed by the lighting provided from the 50m high lighting towers. In any event, external lighting details are reserved matters and subject to further consultation with Natural England, pursuant to Schedule 11 paragraph 24.
Q5.0.10	App, NE	 Mitigation and compensation areas HRA Part 2, para 9.4, movement of the location of Mitigation Area A to Halton Marshes and WFD Assessment section 2.6, Habitat compensation scheme. How are the mitigation and compensation sites, including the East Halton overcompensation site, intended to operate in conjunction with each other? How would each be suitable for particular species? Would there be overlapping time frames? How would the monitoring provisions operate? Can we be sure that any time lag in providing ecologically 	No changes to mitigation and compensation measures, or to the timings for the provision of compensatory habitat, are proposed as part of the material change application currently being considered by the ExB. The ExB's questions relate to the mitigation and compensation measures which were agreed as part of the original DCO application, and as part of the previous application for a non-material change to the DCO, which moved the location of Mitigation Area A. The Applicant does not consider that these questions are relevant to the current Application. However, for completeness, the Applicant would signpost the ExB to the following: The SoS's Habitat Regulations assessment for the non-material change application (which can be found on the Planning Inspectorate website here) and for the original DCO (at Annex 1 to the decision letter) fully explain the operation of the sites, and the species they are intended to mitigate/compensate for. Programme timing constraints are set out in Schedule 11 paragraph 21 and in Schedule 8 paragraph 25 of the original DCO. No changes are proposed to these as part of the proposed material change. The timing of CCSWG is set out in an Agreement with NE. Monitoring is set out in the terrestrial environmental management and monitoring plan (TEMMP), compensation environmental management and monitoring plan (CEMMP) and marine environmental management and monitoring plan (MEMMP) which must be approved by

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ExQ1	Question to:	Question:	
		functioning habitat in relation to the progress of the works would	Natural England and the MMO (in the case of the MEMMP) in accordance with requirement 19, i.e. paragraph 19 of Schedule 11.
		not be harmful?	The proposed change will have no impact on the time lag or the effects of the time lag: no different species or habitats are affected by the proposed change and the time lag is not being amended. The relevant test was subject to examination in 2012; it is not to be 'sure' that the compensation will function as a matter of certainty, but is rather a judgement on the part of the decision maker that the compensation proposals will be delivered, and in time replicate the functions lost. Refer to the Panel's Report (paragraphs 10.170 <i>et seq</i>) and to the SoS's HRA paragraph 29.
Q5.0.11	App, NE	Please provide evidence that the compensation habitat provisions would remain appropriate over the decades to come. What maintenance plans would be in place to ensure that they do?	No changes to the compensation habitat provisions has been proposed by the Applicant and the original assessment of the compensation provision by the Secretary of State remains valid, refer to paragraphs 21 <i>et seq</i> of the SoS's HRA (at Annex 1 to the <u>decision letter</u>). Schedule 11 paragraph 19 sets out the requirements for environmental management and monitoring plans. The CEMMP has been approved by Natural England.
Q5.0.12	App, NE	HRA Part 2, Table 12 states that the effects of capital and maintenance dredging and disposal on sub-tidal habitat and benthic communities are subject to ongoing discussions. NE indicates that additional mitigation for dredging impacts may be required to avoid or reduce impacts on European site features. What is the state of progress in the discussions?	These 'on-going discussions' relate to historic discussions during the original application in 2012, not to the current HRA (refer to the relevant column heading in Table 12). Refer also to response to Q5.0.16 which explains how the SoS considered the matter when determining the original application.
Q5.0.13	Арр	Please distinguish clearly in the AA between the mitigation measures and the compensation measures	The HRA Part 2 report has been updated to clarify this distinction. The updated report was submitted to Natural England on 26 October 2021 and the Applicant has not received any further

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ExQ1	Question to:	Question:	
		and the stages in the assessment process to which they each apply.	comment. An amended version of the copy supplied to NE in October is submitted with this response. Mitigation measures are applied in HRA Part 2, refer to Table 12 and 13. Impacts that cannot be mitigated and that therefore require compensation are set out in paragraphs 10.5 et seq (ibid).
Q5.0.14	Арр	Please summarise the impact on the extent of the areas of estuarine and intertidal mudflats and other habitats which would specifically be caused by the Proposed Changes, rather than by the consented scheme or by changes which have occurred naturally since the original ES was published.	Refer to response to Q1.0.13 which compares the habitat losses assessed in the original application and the habitat losses assessed in 2021. Refer also to UES Appendix 11-2 Section 2, and Annex's 1 and 3 therein. In short, the changes in habitat loss that would result from the Material Change 2 are also set out in Table 13 of the HRA Part 1 report. This includes a small reduction in the loss of estuarine sub-tidal and intertidal mudflat, and a commensurate small new loss of colonising saltmarsh (as this community has recently colonised the site naturally). Regarding indirect functional loss through disturbance, this would affect a reduced area of intertidal mudflat but an increased area of colonising saltmarsh and more established saltmarsh (as a result of colonisation of this area since 2012).
Q5.0.15	App, NE	Please summarise the ways in which the Proposed Changes in the geometry of the quay and in the construction processes and sequencing would affect habitats and species (through, for instance change in the location of noisy activities during construction and operation, changes in the areas of excavation activity, and so on). Would there be an impact on bird activity at North Killingholme Haven Pits through, for instance, the relocation of vessel movements and	The only new construction activity proposed is the use of a cutter suction dredger and this method of dredging is not predicted to give rise to any greater effects than other forms of dredging, refer to UES Appendix 8-1. Construction activity does not get closer to the sensitive habitats and species, it occurs within the same footprint as the original DCO. The proposed changes to the quay will make no difference to the impacts on North Killingholme Pits as the amended works are no nearer to them and because they are already protected pursuant to the provision of Schedule 11 paragraph 42. Whilst vessels berthed on the inset quay are closer to NKHP than in the consented scheme, the new berth is merely displacing port activity that is consented in that location. It is also noted that vessels operating to and from C.RO Port pass significantly closer to NKHP on transit to and from their berths and will also be berthed and carrying out loading and unloading operations significantly closer than those using AMEP.

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ExQ1	Question to:	Question:	
		cranage operations to the north of the quay (UES 16.4.10)?	In the amended scheme the rail crane will not operate alongside the barge berth, so rail crane operations will be more remote from North Killingholme Haven Pits than in the consented scheme.
Q5.0.16	App, NE	UES 4.3.9 to 4.3.11, notes that despite an additional 1.1M tonnes of clay now to be deposited at sea rather than on land as originally intended, the estimated marine construction vessel movements would remain within the figures set out in paragraph 14.6.27 of the original ES. We are told this is because, upon review, it was found that the figures reflected the deposit of all excavated material in the estuary. Does this also apply to the effects on biodiversity identified within the ES envelope or would the additional deposition give rise to further effects? Would changes to the Marine Environmental Management and Monitoring Plan (MEMMP) and further assessment within the HRA consequently be required?	Apart from the navigation risk assessment, the remaining impact assessments are not predicated at all on the precise number of construction vessel movements. The effects on aquatic ecology due to the additional disposal is covered in UES Chapter 10, but is considered not significant as HU081 is a consented disposal site, paragraph 10.4.30 et seq. MEMMP A MEMMP for the consented scheme has already been approved by the MMO, pursuant to Schedule 11 paragraph 19(2). This will require minor changes to reflect the use of HU081 due to the additional clay deposits, so that HU081 is subject to the same monitoring as HU082. HRA The Panel noted at Paragraph 10.79 of their Report that: 'Disposal of dredged material is managed and monitored. Locations for disposal of dredged material can be selected to minimise adverse effects on benthic communities while maintaining the sediment balance within the estuary. Because there would be additional dredging adding to existing dredging in the estuary there is a possibility of in combination effects over long term.' And at Paragraph 10.85 that: 'The regime of maintenance dredging and the disposal of material from capital and maintenance dredging could give rise to possible in-combination or cumulative effects over the long term. The potential for adverse effects can be avoided with a regime of monitoring linked with mechanisms for securing modification of working practices if any adverse effects are identified. A Marine EMMP is required by Condition 15 of the proposed DML and also by Requirement 17 of the proposed DCO [PDC037]'. In the SoS's HRA, the SoS agrees with the Panel on the above points (paragraph 11). The applicant considers the same logic applies to the amended disposal regime, in other words a regime of monitoring can be developed to avoid adverse effects.

ExQ1: 19 November 2021
Responses are due by Deadline 1: 14 December 2021 at 23:59

ExQ1	Question to:	Question:	
Q5.0.17	Арр	Has the principle in the Environment Act of achieving biodiversity net gain been incorporated in the	The principles enshrined in The Environment Act 2021 relating to biodiversity net gain (BNG) do not come into force until 2023 and will not apply to this project.
		Proposed Changes?	However, the relocated Mitigation Area A will deliver BNG for the terrestrial habitat to be lost on Killingholme Marshes and the compensation site will deliver BNG for the marine environment, despite these being approved seven years ago.
6. (WFD		r Framework Directive	
Q6.0.1	Арр	Please respond to the EA's concerns set out in their RR dated 13.8.21 and consultation response dated 26.5.21 regarding the WFD Assessment.	An SoCG has been agreed with the EA has been submitted at Deadline 1 [document reference TR030006/D1/SOCG/EA]. An updated WFD assessment has been produced by the Applicant, was shared with the EA on18 November 2021 and is included as TR030006/D1/10.
Q6.0.2	Арр	RR 9.1, the EA refers to a new, short section added to the EA WFD guidance intended to show that the Applicant has considered other activities that could affect the same receptors. How is this reflected in the WFD Assessment?	Following consultation with the EA, a section has been added to a revised version of the WFDa submitted with this response, with reference TR030006/D1/10.
Q6.0.3	Арр	Please develop the evidence for the effects of dredging and disposal on benthic receptors. What monitoring and mitigation measures are proposed to control the effects and how they would be secured?	Impacts of dredging and disposal on benthic receptors is set out in UES Chapter 10, paragraphs 10.4.24 et seq. Monitoring and mitigation for dredging and disposal on benthic receptors is explained in the Scheme approved by the Environment Agency pursuant to Schedule 11 Paragraph 15 of the DCO and submitted with this response. Further the Applicant has agreed a Benthic Invertebrate Monitoring Scheme for the dredge disposal sites with the Environment Agency. This is submitted with this response as document reference TR030006/D1/11.

ExQ1: 19 November 2021
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ExQ1	Question to:	Question:	
Q6.0.4	Арр	WFD Assessment 5.3.3 Dissolved Oxygen, 4 th line, notes, 'to ensure percussive is not undertaken when DO levels are lower than 5mg/l.' Please explain.	The sentence should read 'ensure percussive piling is not undertaken'; this simply reflects Condition 39(3) of the Deemed Marine Licence at Schedule 8 of the DCO. DO stands for 'dissolved oxygen'. This particular condition was required by EA, MMO and NE as recorded paragraph 4.66 in the original Written Representation of the EA, here: Summary of Environment Agency Relevant Representations (planninginspectorate.gov.uk)
Q6.0.5	Арр	Polycyclic Aromatic Hydrocarbon exceedances – please respond to the EA's request for further justification to better explain the time periods and scale of PAH exceedances using the modelled dispersion data.	A level of PAHs are present within the water column of the Humber Lower transitional waterbody. Two PAHs (Benzo(b)fluoranthene and Benzo(g-h-i)perylene) are found at levels which currently exceed their environmental equality standard (EQS) level (Environment Agency catchment data explorer: 2019 records, available at: Water column PAH levels may be increased due to activities taking place in the marine environment, such as dredging work, which can resuspend PAHs associated with marine sediments. This can lead to increases in the levels of some PAHs detected within the water column, whilst the activity is ongoing and for a period of time thereafter. An indicative dredge programme is provided in the updated WFDa Report submitted to EA on 18 November 2021 and included as document TR030006/D1/10 to give an indication of time period and scale of dredging operations.
Q6.0.6	Арр	Please submit the SediChem assessment work undertaken, or say where it can be found.	The SediChem assessment work was submitted to the EA on 18 November 2021 and is submitted separately with this response as document TR030006/D1/12.
Q6.0.7	EA	Would the EA expand upon its concerns relating to the cumulative assessment undertaken for the WFD Assessment?	Left blank by the Applicant.
7.	Flood	l Risk	

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ExQ1	Question to:	Question:	
Q7.0.1	App, EA	Please respond to the EA's concerns set out in their RR dated 13.8.21 and consultation response dated 26.5.21 and report on the current state of agreement.	The concerns raised by the EA have been fully addressed (see agreed SoCG between the EA and the Applicant (TR030006/D1/SOCG/EA), and the answer to questions 7.0.2 and 7.0.3 below.) The Applicant notes that no changes affecting the South Bank Flood Agreement are proposed as part of the material change application, and the agreement therefore is not relevant to the Application. Clause 9 of the Flood Defence Agreement (which is in the process of being superseded by new agreements split between AMEP and CCS) states: 9. Commencement of Development 9.1 ABLE will not commence the Development until (i) all persons owning a legal estate in the Quay other than the Crown Estate Commissioners have entered into obligations in an agreement with the EA under s30 Anglian Water Authority Act 1977 in the same form as the obligations set out in this Agreement (ii) all persons owning a legal estate in Cherry Cobb Sands have entered into obligations in an agreement with the EA under s41 of the Yorkshire Water Authority Act 1986 in the same form as the obligations set out in an agreement of even date between ABLE and the EA The Applicant is in the process of putting these agreements in place.
Q7.0.2	Арр	Please explain fully how flood risk matters identified in UES 13.1.5 have been analysed and assessed, since UES Section 13.4 only	It is explained in UES Chapter 13 paragraph 13.2.23 that there are no proposed changes to arrangements for the disposal of surface water, so there is no change to be assessed.

ExQ1: 19 November 2021
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ExQ1	Question to:	Question:	
		explicitly addresses changes to overtopping rates and changes on wave reflection. UES 13.9.2 refers to the discharge of storm water runoff into the Humber Estuary but	It is explained in UES Chapter 13 paragraph 13.2.24 that the proposed changes do not impact on the flood risk arising from breach of the existing flood defences, so there is no change to be assessed.
		does not relate this to the changes set out in UES 13.1.5.	Paragraph 13.9.2 merely records the consented proposals which are not being changed as there is no material change to surface water run-off pursuant to the proposed change.
Q7.0.3	Арр	What account has been taken of the emerging flood strategy (Humber 2100+)? Has UKCP 18 been taken into account?	The EA has so far advised up to date water levels within the estuary pursuant to the emerging Humber Flood Strategy, refer to App UES 13-1. These have been used in re-assessing overtopping; refer to Table 13-5 to 7. It is understood that this is the only relevant Humber 2100+ information available.
			UES Appendix 13-1 contains the information provided by the EA. In the table of 2021 Humber Estuary Water Levels, the footnote records that the information is 'in line with UKCP18 guidance'. These are the water levels used in the re-assessment of overtopping.
Q7.0.4	App, EA	Have the discrepancies in interpretation of the legal agreement between the EA and the Applicant been resolved?	The Applicant agrees with the EA's interpretation of the legal agreement, as set out in its relevant representation) (RR-04). As noted in the SoCG between the Applicant and the EA which was submitted at Deadline 1 [document reference TR030006/D1/SOCG/EA], any minor corrections which may be made to table 13.1 and paragraph 13.2.11 to reflect the EA's representation would have no effect on the conclusions reached in the UES regarding likely significant effects resulting from the proposed material change.
Q7.0.5	Арр	How would the Proposed Changes affect flood risk in relation to the various options which would be available to the contractor regarding construction method and sequence (damming, piling, placing of backfill, etc.)?	The proposed changes have no effect on surface water run-off so can only plausibly affect flood risk from the sea. Flood risk from the sea arises from overtopping or a breach of the flood defences. The proposed changes do not affect the risk of a breach. The method of construction and sequence of construction of the quay would not affect flood risk from overtopping at all as there is no more adverse scenario than the final scenario, given that the north and south revetments are constructed first and these are the structures that affect overtopping of existing defences from wave reflection.

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ExQ1	Question to:	Question:	
Q7.0.6	EA	Is the EA satisfied with the Applicant's qualitative assessment of wave reflection onto the strategic flood defences?	Left blank by the Applicant
Q7.0.7	App, EA	South Bank Flood Agreement Clause 9.1(i): Have the EA's concerns over whether all persons owning a legal estate in the quay have entered into a legal agreement in the same terms as the original agreement been resolved?	The Applicant is currently in the process of putting such agreements in place.
8.	Drain	age	
Q8.0.1	App, North East Lindsay Drainage Board (NELDB)	Please report on the state of agreement with the NELDB regarding the points made in their RR dated 2.8.21, including the need for a revised drainage strategy, approval for any realignments, design standards, capacities, access, monitoring, and maintenance provisions.	A signed SoCG is now in place between the Applicant and NELDB, in which the parties agree that all matters have been resolved.
Q8.0.2	Арр	Would any of the Proposed Changes to drainage affect third parties?	As noted in the signed SoCG between the Applicant and NELDB, no changes to the drainage strategy are proposed as part of the material change application. There would therefore be no impacts on third parties from the proposed changes, as regards drainage.
Q8.0.3	Арр	When is the Applicant intending to submit for approval the detailed surface water drainage strategy required in NLC's discharge of	The Discharge Notice does not contradict the UES.

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ExQ1	Question to:	Question:	
		condition notice dated 5 August 2020 (Appendix UES13-3). In the absence of detailed approval, the discharge of condition notice appears to contradict the assertions made in UES 13.2.22/23.	The Discharge Notice at UES Appendix 13-3 simply repeats the requirement of the DCO before stating: The details submitted pursuant to the discharge of Requirement 13 in relation to Stage 1: Killingholme Marshes Drainage Scheme are considered to be acceptable. Therefore Requirement 13 is hereby discharged in respect of Stage 1. Stage 1 is the main drainage strategy for the whole terrestrial area of the AMEP site.
9.	Quay	side Cranes	
Q9.0.1	Арр	UES 22.4.9, How is the Civil Aviation Publications (CAP) 1096 requirement for lighting en-route objects 150m or more above ground level (agl) co-ordinated with the requirements arising from the Humberside Airport Obstacle Limiting Surface (OLS)/Outer Horizontal Surface (OHS)?	Refer to separate report with reference TR030006/D1/13 which has been submitted to address this question.
Q9.0.2	Арр	The photomontages in the original ES show turbines set upright on the site. Should consideration be given to lighting the turbines under construction which, at 165m, are more than 150m agl?	Refer to separate report with reference TR030006/D1/13 which has been submitted to address this question.
Q9.0.3	Арр	UES 22.5.6, third bullet, notes that for a crane of height 200m, four levels of lighting are recommended: medium intensity at the top and various intensities at intermediate levels. Would these	Refer to separate report with reference TR030006/D1/13 which has been submitted to address this question.

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ExQ1	Question to:	Question:	
		recommendations be followed? Would there be a different regime for cranes above 200m in height?	
Q9.0.4	Арр	Has progress been made in consultations regarding the recommended white flashing day-time lighting to the cranes, in addition to the necessary continuous red night-time lighting?	Refer to separate report with reference TR030006/D1/13 which has been submitted to address this question.
Q9.0.5	Арр	Please fully assess the impacts of the various forms of lighting, and the contrasting, coloured patterned banding (a possible alternative to white flashing lighting) in relation to residential, avian, landscape, and heritage receptors.	Refer to separate report with reference TR030006/D1/13 which has been submitted to address this question.
Q9.0.6	Арр	Has responsibility for incorporating the tall features into air mapping ben resolved?	Refer to separate report with reference TR030006/D1/13 which has been submitted to address this Question.
Q9.0.7	Арр	Please prepare material showing zones of visibility for the cranes in relation to heritage assets, landscape, and residential receptors.	Refer to separate report with reference TR030006/D1/14 which has been submitted to address this question, with associated figures in document TR030006/D1/14/F.
Q9.0.8	Арр	Please show descriptively and diagrammatically, including through photomontages updated from the original ES and new photomontages if necessary, the effects of the taller	Refer to separate report with reference TR030006/D1/14 which has been submitted to address this question, with associated figures in document TR030006/D1/14/F. This report cross references to the LVIA prepared for Chapter 20 of the original ES.

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ExQ1	Question to:	Question:	
		cranes and their lighting on these receptors, including their night-time effects. Show this with reference to the LVIA prepared for Chapter 20 of the original ES, and the analysis of Heritage setting effects undertaken for the ES (Annex 18.4).	
Q9.0.9	Арр	Useful updated photomontages would be: VP1, VP2, VP3, VP4, VP8, VP13 and VP17. However, the choice may depend on the zone of visibility and it would be helpful to have sight of this in outline form as soon as possible.	Refer to separate report with reference TR030006/D1/14 which has been submitted to address this question, with associated figures in document TR030006/D1/14/F.
Q9.0.10	App, NE	UES 22.4.4 notes that the potential for bird activity to migrate towards Humberside Airport because of the taller cranes is deemed MAJOR/intermediate. However, UES 22.5.2 (first bullet) tells us that birds displaced would be likely to move to the compensation site and mitigation site, both of which are further away from Humberside Airport. Accordingly (fourth bullet) the risk would be reduced to neutral. Please provide evidence that this would be so. Is NE content with this aspect?	This risk assessment is based on expert ornithological opinion that birds displaced by the development would stay within the Estuary and make use of the mitigation and compensation areas on the estuary edge rather than fly inland.
10.	Footp	oath Diversion	

ExQ1: 19 November 2021
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ExQ1	Question to:	Question:	
Q10.0.1	Арр	How frequently is Footpath 50 used at various times throughout the year, and how often is the railway track crossed?	There are no pedestrian counts for users of FP50. So far as the Applicant understands Network Rail's position, it is not how often the railway is crossed by pedestrians in this case but that it is being crossed by anyone at all. The footpath is part of the English Coastal Path and can be expected to attract long distance walkers.
Q10.0.2	App, Network Rail	It would be tempting for Footpath users to simply risk crossing the track to avoid the proposed 440m diversion. Would some form of automatic barrier be feasible to allow this to be done safely, bearing in mind the line is not currently in use?	The options proposed to the Applicant by Network Rail are recorded in UES Appendix 21-1. The Applicant understands that despite its current appearance the railway remains on the operational network and permission for new foot crossings is rarely supported by NR. Presently the track is overgrown at the crossing location and the dense vegetation effectively provides a barrier and prevents access to the line as seen along the edges of the railway corridor in the images below. Consented Rail Crossing Point

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ExQ1	Question to:	Question:	
			Proposed Footpath up to Agricultural Crossing

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ExQ1	Question to:	Question:
		Proposed Agricultural Crossing Point Although the line is not currently in use, and is temporarily closed, C.RO Port has an Access Agreement with Network Rail and could request access at any time in accordance with that Agreement. In addition C.GEN has protective provisions within the extant AMEP DCO (Schedule 9 Part 5) to operate trains without unreasonable interference by the Applicant, along the rail line and through the AMEP site.

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ExQ1	Question to:	Question:	
11.	Herita	age Aspects	
Q11.0.1	App, NLC	NLC's consultation memo dated 25.5.21 indicates expected adverse impacts on paleo-land surfaces, maritime archaeology and aviation archaeology. Also, it considers the updated Marine WSI to be inadequate. However, UES 18.1.5 notes that no change to the WSI is proposed. Please provide an update on the current state of agreement regarding marine archaeology.	The updated Marine WSI has been revised and has been agreed by NLC. (Current version Issue 7, September 2021) and is submitted with reference TR030006/D1/15.
Q11.0.2	Арр	Why do the site numbers differ by one digit between UES Figure 18-1 and Appendix UES18-1, which contains the original WSI?	There were inconsistencies in numbering between the original ES and the 2012 WSI that were carried over into the UES. The updated WSI [TR030006/D1/15] has renumbered the heritage receptors using current Wessex Archaeology numbering conventions.
Q11.0.3	Арр	UES 18.4.6 notes that there would be no alteration to the depths of dredging (up to -11m CD in the berthing pocket, -9m CD in the approach channel and turning area). However, the berthing pocket would be repositioned to the north of the quay, requiring 2m greater depth of excavation. Does this have implications for marine archaeology, including geoarchaeology?	The organic material indicative of the presence of prehistoric land surfaces and deposits (shown in Vibrocores VC05, VC06, VC07, VC08, VC09 and VC13 – Figure 2; 2021 marine WSI, Wessex Archaeology Ltd.) will still be below the maximum depth of dredging planned. However, the updated geoarchaeological assessment will produce a deposit model and will confirm this prior to construction.

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ExQ1	Question to:	Question:	
Q11.0.4	Арр	When will the pre-construction activities required under the 2012 WSI be carried out? When will the results of these activities give rise to an updated assessment?	Since the completion of the 2012 WSI there have been no further design phase investigations which could have contained the suggested design phase mitigation measures, however, an updated mitigation strategy has been developed and included in the 2021 WSI (Section 7.3; 2021 marine WSI, Wessex Archaeology Ltd.) [TR030006/D1/15]. This includes: • archaeological analysis of newly-acquired marine geophysical data; • Geoarchaeological assessment of newly-acquired geotechnical data; and • Intertidal Walkover survey. Construction phase mitigation will include: • Archaeological watching briefs during backhoe dredging; • Implementation of a Protocol for Archaeological Discoveries; and Additional mitigation in response to discoveries arising from the Dredge Reporting Protocol.
Q11.0.5	Арр	In view of the difficulties in making observations during dredging operations, how would the WSI requirement at 5.2.12-14 for a watching brief, or any alternative monitoring during dredging, be fulfilled?	Archaeological watching briefs are possible during backhoe dredging operations. Subject to the results of the further geophysical analysis, the magnetometer anomalies within the dredging area will be targeted during the watching brief, and so the areas around these anomalies will be dredged using backhoe dredging. Watching briefs are also expected to be carried out for the backhoe dredging taking place within the Berth Pocket area east of the New Quay wall and all other areas dredged using backhoe dredging. Watching brief methodologies and frequency of archaeological monitoring will be kept under review with curators and amended or ceased as appropriate. Watching briefs are not expected to be carried out where TSHD or CSD is being used due to the lack of visual access to sediments preventing an archaeological assessment and the difficulty in retrieving finds and samples
Q11.0.6	Арр	When is the Stage 3 assessment of the sample sediments obtained so far going to be carried out in accordance with the	The scope and methodology of further geoarchaeological works will be set out in a distinct method statement. This will include the Stage 3 assessment of sample sediments, as well as the creation of a deposit model and the geoarchaeological assessment of 7 further marine boreholes proposed for the site. This is proposed for Q1/2 of 2022, prior to construction

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ExQ1	Question to:	Question:	
		recommendations of the 2012 WSI (Appendix UES18-1, 5.1.10)?	
Q11.0.7	Арр	What archaeological research agenda would be used to assess the material arising from the construction operations?	All artefacts identified from material recovered will be retained, processed and recorded in accordance with the ClfA's Standard and guidance for archaeological field evaluation and Standard and guidance for the collection, documentation, conservation and research of archaeological material (both available at:
			The proposed development lies within the area of the East Midlands Research Agenda which will be used to develop the archaeological assessment and deliverables of the project (along with other specialist or period-specific research frameworks as appropriate)
Q11.0.8	HMBCE	Are Historic England content to rely on the safeguards within the existing DCO? Does Historic England wish to comment on any of the ExQ1 questions?	No response by the Applicant.
12.	Clima	ate Change	
Q12.0.1	Арр	Would the Proposed Changes lead to additional carbon dioxide emissions either in construction (including that emitted in producing construction materials), or operation (including changes in the figures for the movement of vessels)?	The original proposal did not include an assessment of carbon dioxide emissions, but by inspection as quantities of material to be used in the scheme are not significantly different there is not expected to be any significant change due to construction but there will be less reclamation and less quay piling so it can be expected to be less. Even if vessels are increased to dispose of material in the estuary, that does not make the original scheme worse as there is still a need to dredge and dispose on land and potentially to transport off site as well.
Q12.0.2	Арр	Have the assessments made in the original ES been revised to take account of the Proposed Changes?	Refer to UES paragraph 25.2.17 which describes the assessments undertaken in the UES. In relation to Air Quality, ES Chapter 17 reported the operational phase carbon dioxide emissions from AMEP. UES paragraph 17.7.8 notes that this assessment will not change.

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ExQ1	Question to:	Question:	
			In relation to Flood risk, the current climate change allowances for sea level rise (CP18) have been applied. ES Annex 6.2 compared the carbon footprint in various transport scenarios and the proposed change has no impact on that assessment as it relates to an operational impact.
Q12.0.3	Арр	What impact would the 2035 sixth Carbon Budget target and the 2050 Net Zero Target have on the Proposed Changes?	It is not anticipated that the Proposed Changes would have any measurable impact at a national scale either on the sixth Carbon Budget or the 2050 Net Zero Target. The updated Reg 6 statement contains some information on the changes to Government climate change policy and relevance for AMEP. The project will be built by the time the sixth Carbon Budget takes effect and will be helping with the installation of offshore energy infrastructure that will assist with the 2050 Net Zero Target, in particular the drive for 40GW of offshore wind by 2030.
13. Effec	13. Cumulative and in-combination Effects		
Q13.0.1	Арр	UES Table 8-1: Scoping Opinion, Item 4.19.1 Table 6 – Has the approach to cumulative assessment regarding the South Humber Bank Energy Centre been agreed with the relevant consultation bodies, bearing in mind possible hydrological effects?	The EA has confirmed to the Applicant that they do not consider that the South Humber Energy Centre will have any cumulative effects with AMEP at a waterbody level.
Q13.0.2	App, MMO	The MMO states at 4.15 in its RR dated 19.8.21 that they cannot provide detailed comments regarding cumulative impacts without reviewing the specific activities and licence conditions associated with other developments. Please discuss and resolve this point with MMO.	The Applicant discussed the issue with the MMO at a meeting on 1 December 2021. The Applicant explained that Chapter 26 is merely a summary of the conclusions from each individual topic Chapters and that the other projects considered in the assessment of cumulative effects are described in Chapter 6. The Applicant is awaiting a response from MMO.

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ExQ1	Question to:	Question:	
Q13.0.3		The cumulative effects assessments in each aspect chapter are reported at a high level, with limited if any justification (for instance UES 13.4.9 regarding Flood Risk and Drainage). It would be helpful to have the justifications for conclusions on these effects in a more developed form.	AMEP is a consented development. Residual effects of the consented scheme were reported in the topic chapters of the original ES. The cumulative effects of the consented scheme with other existing and consented developments was reported at the time in ES document EX44.1. Any subsequent consented projects will have undertaken their own cumulative impact assessment on the basis of the original AMEP ES and the residual effects reported therein. If there is no change to the residual effects from those reported in the original ES then subsequent projects' cumulative impact assessments will remain valid and no further review is required. Each topic Chapter of the UES describes any changes to the residual effects from those reported in the original ES, as summarised below. The principal finding of the original cumulative impact assessment is then also provided below for ease of reference. Finally a statement is provided about the continued reliability of the original assessment. Chapter 7: Geology, Hydrogeology and Ground Conditions The UES reported no changes from the original ES and the is topic scoped out (UES para 7.1.11). The original ES found that the only residual effect was the loss of Grade 3 agricultural land (ES Section 7.8), however the site was allocated for industrial development. Cumulative Impacts The loss of agricultural land per se cannot be mitigated. The indirect effects remains the same and is fully mitigated within AMEP mitigation area, leaving no residual effects to consider cumulatively with other projects. Chapter 8: Hydrodynamic and Sediment Regime The UES reported that changes in water levels, bed shear stresses and waves from the baseline are similar for the amended quay layout and the consented scheme. There are also changes to the maintenance dredge requirements (UES paragraph 8.9.0). Cumulative Impacts There are now no other capital marine developments in the vicinity of the quay so no cumulative

ExQ1	Question to:	Question:	
			Operationally, maintenance dredging activities within the Estuary is a routine activity which will use one of the deposit sites to be used for AMEP, namely HU080. ES EX44.1 paragraph 4.2.7 - 9 reported that:
			4.2.7 Routine disposal of maintenance dredge arisings leads to temporary and minor increases in Suspended Sediment Concentrations (SSCs) in the estuary. The increased concentrations reduce to background values within a matter of days, with dredged sediment being kept in suspension until floc formations lead to it dropping out and being distributed thinly (sub-millimetric) around the estuary bed. The sediment is maintained within the estuary system.
			4.2.8 The cumulative effect of additional maintenance dredging would be to increase the periods of temporary SSC increases and dispersal of dredged material around the estuary bed. In this sediment-rich environment the impact on temporary SSCs near to the disposal site would be minor, and negligible on estuary-wide, long-term SSCs.
			4.2.9 The dredging and disposal process redistributes sediment back in to the estuary system, which had previously settled within berthing pockets. Therefore, there will be no impact in terms of changes to estuary sediment type or long-term background SSCs. The dispersal of this sediment throughout the estuary will give a neutral impact.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 9: Water and Sediment Quality
			The UES reported no change to the residual effects of the original scheme (UES paragraph 9.6.8)
			Cumulative Impacts
			ES EX44.1 paragraphs 4.3.20 – 22 state:

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ExQ1	Question to:	Question:	
			4.3.20 The impacts on water and sediment quality from each of the projects scoped into this assessment relate to short term localised effects associated with dredging activities, the uncontrolled release of surface water drainage and foul water, and the accidental spill or leak of pollutants such as fuels, oils, chemicals, or cargo. Cumulative impacts from dredging operations can be mitigated by scheduling the coastal works and dredging associated with the quay construction of the AMEP project that might also give rise to elevated turbidity or the release of contaminants to avoid coincidence with the dredging plans for other projects. This will ensure that any associated impacts remain within the boundaries of natural variability for this water body and that there are is no detrimental change to its WFD status.
			4.3.21 Surface water discharges from the projects considered will be appropriately controlled in compliance with Environment Agency standards and permits such that there is no significant from (them), there is no significant cumulative impact expected to arise between the AMEP project and other projects on the Humber.
			4.3.22 Where accidental leaks or spills happen simultaneously at the AMEP site and other sites, there is potential for a cumulative impact on water and sediment quality. The likelihood of simultaneous events in the same locality of the Humber is low and assuming that best practice storage of contaminants is undertaken and that emergency spill response management plans are in place at all relevant sites, there is little possibility of a significant impact to the water quality of the Humber Estuary.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 10: Aquatic Ecology
			Residual effects on the aquatic ecology receptors from the material amendment and AMEP development as a whole remain as identified in the original ES (UES paragraph 10.6.2).

ExQ1	Question to:	Question:	
			The only significant residual effects reported in the original ES was the loss of habitat and on local fish populations due to a loss of nursery area (ES Section 10.8). However both of these impacts are addressed by the compensation proposals at Cherry Cobb Sands.
			Cumulative Impacts
			The only marine project that now acts in combination with AMEP is the maintenance dredging of adjacent berths, which are already part of the baseline that has been considered. Accordingly, there are no significant cumulative impacts.
			Chapter 11: Terrestrial Ecology and Nature Conservation
			The UES reports that overall, there are no changes to the residual effects of the original scheme identified in Chapter 11 of the original ES (UES paragraph 11.6.7).
			Cumulative Impacts
			EX44.1 paragraph 4.5.27 states that:
			Overall, if mitigation measures outlined (in other Project ESs) are implemented it is likely that cumulative / in-combination impacts across the developments will be reduced to minor levels. These assessments may be subject to change as new projects or information are brought forward.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 12 :Commercial and Recreational Fisheries
			The UES reports that the residual effects on the commercial and recreational fisheries receptors from the material amendment and AMEP development as a whole remain as identified in the original ES (following paragraph 12.6.5).
			Cumulative Impacts
			EX 44.1 paragraph 4.6.18 states
			AMEP will have a very small to negligible impact on fisheries on its own and the combined effect of other developments is considered not to be significant. As such, no substantially

ExQ1	Question to:	Question:	
			greater impact than previously concluded is expected due to cumulative or in-combination effects and it is considered here that there is no need to undertake further mitigation actions.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 13: Flood Risk and Drainage
			The UES concluded that there are no changes to the residual effects previously identified within Chapter 13 of the original ES (paragraph 13.6.3).
			Cumulative Impacts
			EX 44.1 paragraph 4.7.13 states:
			None of the projects identified above have any cumulative impacts in combination with the Project. Thus there is no need for any mitigation and there are no residual impacts.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 14: Navigation
			The UES concluded that all the residual effects of the revised scheme are the same or lower than those assessed within the original ES for the DCO (paragraph 14.6.14).
			Cumulative Impacts
			The only marine project that now acts in combination with AMEP is the maintenance dredging of adjacent berths, but these traffic movements are routine and actually part of the baseline traffic. Accordingly there are no significant cumulative impacts.
			Chapter 15: Traffic and Transport

ExQ1	Question to:	Question:	
			The UES reported that there are no significant changes since the original ES and this topic has been scoped out of the UES, (paragraph 15.1.0).
			Chapter 16: Noise and Vibration
			The UES concluded that there are (no) changes to the assessment of residual effects identified within the original ES (paragraph 16.6.6).
			Cumulative Impacts
			EX44.1 paragraph 4.10.4 states
			The cumulative noise impact of other projects with the AMEP project during the daytime and night time periods is considered to be Negligible as the contribution from AMEP is not causing an increase in noise levels.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 17: Air Quality
			The UES concluded that there are no changes to the residual effects identifies within the original ES of the DCO (paragraph 17.6.5).
			Cumulative Impacts
			EX44.1 paragraph 4.11.1 states:
			The impact assessment undertaken for AMEP concluded that there were no significant impacts associated with the operation of AMEP at any receptors, human or ecological In addition, due to the nature of emissions sources associated with AMEP, impacts arise close to the site and access shipping lanes, and in close proximity to roads used to access the site.
			paragraph 4.11.18 states:
			When considering these cumulative impacts, it is important to note that the impacts associated with the AMEP proposal are, in isolation, considered not significant at North Killingholme Pits and the Humber Estuary. Therefore, the total cumulative impact would be, at the very

ExQ1	Question to:	Question:	
			worst, a small percentage of the assessment criteria, and a small percentage of the existing impacts due to existing sources of emissions; in terms of the Humber Estuary impacts would also occur at a small area of the Estuary, at worst.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 18: Marine Archaeology
			The UES reported no changes to the residual effects previously identified within the original ES for the DCO (paragraph 18.6.3).
			Cumulative Impacts
			EX44.1 paragraph 4.12.2 states:
			No projects have been identified where there are residual effects on the historic environment which can act in combination with the AMEP proposals. Most effects that have been identified elsewhere are too localised or of such low significance that there is no cumulative change identifiable.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.
			Chapter 19: Light
			The UES reported that there are no significant changes since the original ES and this topic has been scoped out of the UES (paragraph 19.1.7).
			Chapter 20: LVIA
			The UES reported that there are no significant changes since the original ES and this topic has been scoped out of the UES (paragraph 20.1.8).

ExQ1	Question to:	Question:	
			Chapter 21: Socio-Economic
			The UES reports that no significant effects were identified as a result of the proposed change, there are no additional effects and no changes to the residual effects identified in Chapter 21 of the original ES (paragraph 21.6.1).
			Cumulative Impacts
			ES Section 21.9 considered cumulative impacts with a number of other projects all of which are now built or have failed to be implemented. However, as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts, no further cumulative impact needs to be undertaken.
			Chapter 22: Aviation
			The residual change in risk level associated with the higher quayside cranes is modest and manageable given the additional mitigation recommendations proposed (paragraph 22.8.8).
			Cumulative Impacts
			EX44.1 paragraph 1.15.4 states:
			With the provision of the aviation warning light mitigation measures, the hazard to aviation presented by tall structures will be mitigated to a level in line with those presented at other airports and aerodromes in the UK. Therefore, the residual impact is judged to be low. There are several tall structures present and to be constructed in the vicinity of the AMEP site, but none of them of the scale that will be employed at the AMEP site. The turbines erected on the quay will only be in place temporarily and their blades will not be rotating. They, therefore, will have no significant cumulative impact on radar. Given that the Compensation Site to be developed to cater for birds displaced from the AMEP site is located further away from Humberside Airport, it is judged that the cumulative bird strike hazard will not be increased. Therefore, the cumulative impact of the tall structures on the AMEP site is judged relatively low.
			This assessment remains valid as residual effects of the original scheme are unchanged and projects that have been consented since AMEP will have considered the residual effects of AMEP cumulatively with their own impacts. Accordingly appropriate mitigation will be incorporated into those subsequent consents.

ExQ1: 19 November 2021 Responses are due by Deadline 1: 14 December 2021 at 23:59

ExQ1	Question to:	Question:	
			Chapter 23: Waste The UES reported that there are no significant changes since the original ES and this topic has been scoped out of the UES, (paragraph 23.1.10). Chapter 24: Health The UES reported that there are no significant changes since the original ES and this topic has been scoped out of the UES, (paragraph 24.1.9).
Q13.0.4	Арр, ЕА	In their consultation response dated 26.5.21, the EA notes that there is little to evidence the cumulative impacts assessment. They express concern regarding the spatial area impacted for key habitat, lack of reference in the WFD assessment, and the absence of dredging projects from the cumulative assessment. Please discuss and resolve these matters.	An amended version of the WFDa was submitted to the EA on 18 November 2021 and is included as TR030006/D1/10. The Applicant and the EA are discussing the content of the amended WFDa, as further detailed in the SoCG agreed between the Applicant and the EA submitted at Deadline 1 (TR30006/D1/SOCG/EA).
Q13.0.5	Арр	Have all recent permissions/consents, including those identified by NLC in their consultation response of 26.3.21, been considered? These include: • The Immingham Open Cycle Gas Turbine Order 2020 (DCO – SI 2020 No 847).	The Applicant consulted with relevant bodies in relation to other projects to be considered cumulatively with AMEP, refer to UES Chapter 6. The Applicant assumes that the question refers to the NLC response dated 26.05.21; both projects are referenced in UES Chapter 6, Table 6-3 and have been considered.

ExQ1: 19 November 2021
Responses are due by Deadline 1: 14 December 2021 at 23:59

ExQ1	Question to:	Question:	
		PP (PA/2018/918) New gas fired power station, Rosper Road, Immingham.	
Q13.0.6	App, NE	Has the scheme to create a managed realignment site at the Outstrays to Skefflington site and the South Humber Gateway strategic mitigation site been included in the assessments?	The Outstays to Skeffling Project is recorded in Table 6-2, and the possibility of cumulative impacts was discounted. The Humber Gateway Strategic Mitigation sites are included in local planning documents but are not consented 'projects' in themselves and so are not considered in the EIA.
Q13.0.7	Арр	Has an assessment been made of any indirect effects on Cherry Cobb Sands compensation site of the Proposed Changes, for instance through vessel movements or hydrodynamic effects, together with the effects of consented schemes on the north bank of the Estuary?	The proposed change does not give rise to any different vessel movements. In any event vessel activity is far too remote from the compensation site to give rise to any measurable change to baseline effects. The proposed changes do not give rise to any indirect effects on Cherry Cobb Sands and this is evident from a reading of UES Chapter 8 and the figures therein which identifies no changes within the vicinity of the compensation site. Any scheme consented on the north bank since 2011 should have considered AMEP cumulatively with its own effects. Where an ES has been undertaken the document has been reviewed and if no cumulative impact is identified in combination with AMEP then that is the evidence that AHPL relies on.