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MMO Reference: DCO/2022/00003
Planning Inspectorate Reference: EN010136
Identification Number: 20048964

22 October 2024

Dear Susan Hunt,

Planning Act 2008, BP Alternative Energy Investments Ltd, Proposed Morgan Offshore Windfarm Generation Assets Order

Deadline 2 Submission

On 30 May 2024 the MMO received notice under Section 56 of the Planning Act 2008 (the PA 2008) that the Planning Inspectorate (PINS) had accepted an application made by bp Alternative Energy Investments Ltd, (the Applicant) for determination of a development consent order (DCO) for the construction, maintenance and operation of the proposed Morgan Generation Offshore Windfarm (the DCO Application) (MMO ref: DCO/2022/00003 PINS ref: EN010136).

The DCO Application seeks authorisation for the construction, operation and maintenance of Morgan Offshore Windfarm Generation Assets (MOWF) located approximately 22 kilometres (km) from the Isle of Man Coastline and approximately 37 km from the Northwest coast of England; comprising of up to 96 wind turbine generators, all associated array area infrastructure, and all associated development in an area approximately 280 square kilometres (km^2).

Two Deemed Marine Licences (DML) are included in the draft DCO. One in relation to Wind Turbine Generators (WTG) and Associated Infrastructure, and one for Offshore Substation Platforms and Interconnector Cables.

As a marine licence has been deemed within the draft DCO, the MMO is the delivery body responsible for post-consent monitoring, variation, enforcement, and revocation of provisions relating to the marine environment. As such, the MMO has an interest in ensuring that provisions drafted in a deemed marine licence enable the MMO to fulfil these obligations.

This document comprises the MMO's submission for Deadline 2. This written representation is submitted without prejudice to any future representation the MMO may make about the DCO Application throughout the examination process. This representation is also submitted without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for any other authorisation relevant to the proposed development.

Yours sincerely

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Marine Licensing Case Officer

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1. Comments on Pre-Examination Procedural Deadline Submissions

1.1. PD1-006 Applicant's response to Relevant Representation from Marine Management Organisation: Fish and Shellfish 4.6.5 (Annex 3.1)

1.1.1. The MMO notes that the modelled 207 dB re 1µPa SPLpk contour has been presented, based upon the Popper et al. (2014) threshold for mortality and potential mortal injury to eggs and larvae for a 5.5 metre (m) diameter pin pile and the maximum hammer energy of 4,400 kilojoules (kJ) as requested. The MMO thanks the Applicant for this.

1.1.2. Regarding Figure 1.1 of Annex 3, the MMO notes, from the clarified modelling, the range of impact for mortality and potential mortal injury to cod eggs and larvae from the source of piling is 394m. Although eggs and larval mortality will occur at points where piling takes place across the array, as demonstrated by Figure 1.1, this represents a small area of impact relative to the wider extent of the mapped high intensity cod spawning ground and the MMO is content that the level of impact demonstrated by Figure 1.1 is acceptable and has no further comments to make at this time.

1.1.3. In relation to Section 1.2.2 of Annex 3.1 which relate to the contour decibel levels presented in Figures 3.8, 3.9, 3.10 and 3.11 of the fish ecology chapter, the MMO does not agree with the approach of deriving the modelled underwater noise (UWN) contours form the SELss metric to provide a visual representation of the relevant SELcum thresholds. Please refer to response RR-020.55 in Table 1 for further details.

1.1.4. In relation to Section 1.2.3 of Annex 3.1, the MMO thanks the Applicant for clarifying that the UWN contours presented in Figure 3.14 of the fish ecology chapter display single point piling for a hammer energy of 3,000 kJ to demonstrate the behavioural ranges associated with this lower hammer energy which will represent the maximum hammer energy at 75% of piling. The MMO notes that the Applicant also highlights UWN contours for the behavioural range of impact in cod at their spawning grounds associated with the maximum hammer energy (4,400 kJ) are presented in Figure 3.5.

1.1.5. For the reasons outlined in response RR-020.56 in Table 1 below, the MMO considers that the studies are not appropriate for the purpose of defining a threshold to model behavioural responses in cod at their spawning grounds. The MMO is not aware of a quantitative threshold which would be suitable for the purpose of modelling behavioural responses in wild Atlantic cod. However, cod are broadcast spawners with pelagic larvae so are not reliant on particular seabed habitats for reproduction in the same way that herring are. This means that cod have the ability to move throughout the spawning ground and undertake spawning, without their ability to spawn being impaired if they cannot reach a specific area or habitat due to excessive noise disturbances. As Figure 1.1 demonstrates, the high and low intensity cod spawning grounds are quite extensive in the region, and, therefore, behavioural responses to UWN in cod are less of a concern than they are for herring, as in theory,

cod could move away from the affected area and spawn elsewhere within their spawning ground. In this sense, the physiological risks to cod from UWN are of greater concern.

1.1.6. The MMO requests that the range of impact from UWN based on the thresholds for Group 3 fish with high hearing sensitivity for mortality and potential mortal injury (207 cumulative sound exposure level (SELcum)), recoverable injury (203 SELcum), and TTS (186 SELcum), as per the pile driving threshold guidelines described by Popper et al. (2014), are presented so that the physiological risks to cod can be assessed.

1.1.7. In relation to Sections 1.2.4 and 1.2.5 of Annex 3.1, the MMO thanks the Applicant for clarifying that a pile diameter of 5.5m has been used in modelling the impacts of underwater sound from piling on fish. The MMO is content with the maximum design scenario (MDS) used and has no further comments to make on this matter at this present time.

1.1.8. In relation to Section 1.2.6 of Annex 3.1, as per the MMO comments in response RR-020.57 in Table 1, the MMO supports the commitment to develop the underwater sound management strategy (UWSMS). However, the MMO does not consider that this commitment alone is sufficient to remove the need for a seasonal piling restriction during the cod spawning season (January to April inclusive). Given that modelling for the range of impact for physiological effects (mortality and potential mortal injury, recoverable injury, and TTS, as per the pile driving threshold guidelines described by Popper et al. (2014)) with regard to cod has not been provided, the MMO deems that it is not appropriate to remove the recommended restriction. As per the MMO comments in RR-020.55 of Table 1, the MMO requests that the Applicant presents the range of impact from UWN based on the thresholds for Group 3 fish with high hearing sensitivity for mortality and potential mortal injury (207 cumulative sound exposure level (SELcum)), recoverable injury (203 SELcum), and TTS (186 SELcum) so that the risk to adult cod which may be spawning in the vicinity of the array can be appropriately assessed.

1.1.9. The MMO is of the opinion that it is acceptable for the UWSMS to be developed and mitigation options to be explored post-consent, with input from stakeholders, but the requested piling restrictions for cod and herring must be conditioned onto the DML as a minimum and should only be varied or amended once satisfactory evidence that the range of impact from UWN has been reduced is provided for review and deemed acceptable. The MMO is also content to review any new wording on these conditions to allow for flexibility to be built in. See MMO responses RR-020.59 and RR-020.60 for details of why the Applicant's commitment to developing the UWSMS is not sufficient evidence to remove the recommended seasonal piling restrictions for cod and herring at this stage.

1.2. PD1-007 Applicant's response to Relevant Representations from Marine Management Organisation (RR-020): Underwater Sound

1.2.1. See MMO response to RR-020.84 in Table 1.

1.3. PD1-008 Applicant's response to Relevant Representation from Marine Management Organisation: Fish and Shellfish 4.6.12 (Annex 3.3)

1.3.1. The MMO does not consider the approach, as detailed in Annex 3.3, to modelling UWN impact ranges for mortality and potential mortal injury, recoverable injury, and TTS is acceptable based on their justification that the contours currently presented "*are derived from the contours generated for the single strike sound exposure level (SELss) metric to provide a representation of the relevant cumulative sound exposure level (SELcum) thresholds*". This approach is unnecessary as Popper et al. (2014) clearly defines evidence-based thresholds for mortality and potential mortal injury, recoverable injury, and TTS effects in fish, based on the SELcum metric so there is no need for the inference of new thresholds from the SELss metric.

It is important that Figures are provided which present the correct thresholds for the range of impact from UWN based on the thresholds for Group 3 fish with high hearing sensitivity for mortality and potential mortal injury (207 cumulative sound exposure level (SELcum)), recoverable injury (203 SELcum), and TTS (186 SELcum) based on the pile driving threshold guidelines described by Popper et al. (2014). This key evidence is needed in order to assess the risk of physiological injuries to adult spawning cod from UWN appropriately.

1.3.2. The MMO is content that nursery grounds for cod and herring are not shown within Figures 3.8, 3.9 and 3.10 and 3.11 given how widespread these areas are. The MMO is also content with the Applicant's justification that temporary avoidance of affected nursery ground areas is poses less of a risk to the reproductive success of herring and cod than avoidance of spawning grounds.

1.3.3. In relation to Section 1.2.2 and 1.2.3 of Annex 3.3 regarding herring; the MMO thanks the Applicant for restating that the assessment of behavioural effects to herring in response to UWN from piling is underpinned by the use of a sound level of 135 dB re 1µPa2 .s SELss, as per Hawkins et al., (2014). The MMO notes the Applicant's objections to using the 135 dB threshold of Hawkins et al., (2014), but given an absence of other peer-reviewed empirical evidence of behavioural responses in clupeid fishes to support an alternative threshold for impulsive noise, Hawkins et al., (2014) is still considered the best available scientific evidence by the MMO. Please see MMO response RR-020.56 in Table 1 as to why the studies by Doksæter et al., (2012) and McCauley et al., (2000) are not suitable for the purpose of defining a threshold for modelling behavioural responses in Atlantic herring at their spawning grounds. The MMO further thanks the Applicant for recognising that the 135 dB threshold of Hawkins et al., (2014) is the more precautionary of the two proposed thresholds. The MMO notes clarified UWN modelling maps for behavioural responses in herring relative to the Isle of Man herring spawning ground, for single piling with a 4,400 kJ hammer energy and with a 3,000 kJ hammer energy.

1.3.4. In relation to Section 1.2.2 and 1.2.3 of Annex 3.3 regarding cod; the MMO notes the assessed range of behavioural impact for cod using a sound level of 160 dB re 1µPa

SPLpk as the response threshold. Clarified UWN modelling maps for behavioural responses in cod relative to their spawning ground, based on a 160 dB re 1µPa SPLpk response threshold have also been presented. Please see MMO response RR-020.56 in Table 1 as to why the studies by Doksæter et al., (2012) and McCauley et al., (2000) are not suitable for the purpose of defining a threshold for modelling behavioural responses in cod at their spawning grounds. The limitations of these studies are also relevant to cod. The MMO requests that appropriate modelling using the Popper et al. (2014) criteria should be presented.

1.4. PD1-017 Applicant's Response to Relevant Representations

1.4.1. The MMO welcomes the submission of this response, specifically Table 2.20 which refers to the Applicant's response to MMO comments raised in the MMOs Relevant Representation (RR-020). The MMO provided initial comments regarding DCO/ DML within the Deadline 1 submission. Further responses to the Applicant's comments can be found in Table 1 below.

Table 1. MMO Response to Applicants Pre-examination Procedural Deadline Submission

Applicant's Reference	Relevant Representation Comment	Applicant's Response	MMO's Deadline 2 response
RR-020.2	**Marine Plans** The ES correctly identified that the proposed development is within the North West Offshore Plan Area. The MMO requests that all policies are reviewed within a table to show compliance. This must be produced as the Secretary of State must use the North West Offshore Marine Plan when making planning decisions for the sea, coast, estuaries and tidal waters, as well as developments that impacts these areas, such as infrastructure. The relevant marine plan policies that should be met can be identified using the Explore Marine Plans tool and policy information on the following website: https://www.gov.uk/guidance/explore-marine-plans	The Planning Statement (APP-074) has regard to the relevant policies of the North West Offshore Marine Plan and how the proposed development accords with it. The conclusions throughout the Planning Statement are that the proposed development accords with the plan. The Applicant does not consider it necessary to submit a standalone document setting out policy compliance with marine plan policy, as this information is already included in the Planning Statement.	The MMO maintains the position that a document showing compliance with all plans is submitted as even those that are not applicable need to be revised to show that each policy has been assessed. The MMO has reviewed the Planning Statement (J2) and has identified that the following policies within the North West Offshore Marine Plan Policy have not been assessed for compliance: NW-ACC-1, NW-AGG-3, NW-AQ-2, NW-CAB-2, NW-CC-1, NW-CCUS-1, NW-CCUS-2, NW-CCUS-3, NW-DD-3, NW-DEF-1, NW-FISH-1, NW-INNS-2, NW-ML-1, NW-ML-2, NW-MPA-2, NW-MPA-3, NW-MPA-4, NW-OG-2, NW-PS-4, NW-UWN-1
RR-020.3	Although some marine plan policies are discussed under the relevant chapters to which they relate, the MMO requires the Applicant to detail how the proposed project is compliant with the relevant marine plans by producing a marine plan policy assessment in one document.	Refer to initial response above (RR-020.2)	Please see response to RR-020.2 above.
RR-020.5	**Unexploded Ordnance (UXO)** The MMO would like clarity on whether the investigation of and the detonation of unexploded ordnance (UXO) are included within the licenced activities. These are not part of any of the works orders or set out within the activities of Schedule 3 and	The Applicant can confirm the investigation and detonation of unexploded ordinance is included within the licenced activities. This is authorised by paragraph 2(e) of each deemed marine licence in schedules 3 and 4, which state inter alia: *"2. Subject to the conditions, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable*	The MMO's general position is that UXO activities are sought within a separate marine licence due to the nature of the impacts. The MMO is currently discussing the inclusion of the UXO clearance within the DML and will provide further comments in due course.

	4, however, a draft UXO marine mammal mitigation plan is proposed.	*marine activities under section 66(1) (licensable marine activities) of the 2009 Act* *…* *(e) site clearance and preparation works including clearance of unexploded ordnance, debris, boulder clearance and the removal of out of service cables and static fishing equipment;"*	The MMO is content for the UXO investigation activities to be included and recommend this is a clearly identifiable activity within the DML. If the Examining Authority (ExA) and Secretary of State (SoS) are minded to include UXO clearances the DML should be updated to ensure these activities are set out as a separate activity taking into account activities 10-13 under section 66(1) (licensable marine activities) of the Marine and Coastal Access Act, 2009 (the 2009 Act). This would also include any lift and shift opportunities. The MMO also requests the number of UXOs to be fully assessed at this stage and the maximum number to be included within the DML. The MMO has reviewed the Underwater Sound Management Strategy (Document reference J13) which indicates a maximum UXO clearance number of 13. The MMO requests clarification on this number.
RR-020.6-8	**Arbitration** Article 13 proposes a new enhanced appeals procedure for the Applicant should the MMO refuse an application. This appeals procedure is not available for other marine licence holders. The MMO strongly requests that the appeals procedure for the MMO is removed from the DCO.	The Applicant agrees that this article does not need to be included within the draft DCO for the Proposed Development. The Applicant will update the next version of the draft DCO to reflect this. This article has been included in a number of recent DCOs to manage the appeals procedure for the discharge of requirements, rather than DMLs, and it was not the Applicant's intention to apply this to the discharge of DML conditions.	The MMO welcomes this update.
RR-020.9-16	**Transfer of Benefit of the Order** The MMO understands that Article 7 – Benefit of the Order is drafted in a similar way to previous consents granted by the Secretary of State	Article 7 of the draft DCO (AS-003) contains provisions for the transfer or lease of powers under the DCO. As set out in the Explanatory Memorandum (AS-005) these provisions are based on the Model Provisions and the drafting has developed through their inclusion in many offshore wind farm development consent orders.	Please see MMO comments within section 2 of this document regarding Article 7.

	(SoS), however the MMO has major concerns over the wording. Article 7(1)-(3) gives the right to permanently transfer the benefits of the DCO including the deemed marine licences (DML) in Schedule 3 and 4 to a third party with the consent of the SoS. Part 2: Article 7(1)-(3) *"(1) Subject to this article, the provisions of this Order have effect solely for the benefit of the undertaker.* *(2) Subject to paragraph (5), the undertaker may with the written consent of the Secretary of State—(a) transfer to another person (the transferee) any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be agreed between the undertaker and the transferee; and (b) grant to another person (the lessee) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be so agreed, except where paragraph (6) applies, in which case the consent of the Secretary of State is not required.* *(3) Subject to paragraph (5), the undertaker may with the written consent of the Secretary of State—(a) where an agreement has been made in accordance with paragraph (2)(a),*	Following the precedent drafting from other offshore wind farm orders article 7(2) provides the transfer or grant of DCO powers to take place with the written consent of the Secretary of State and article 7(5) provides for this transfer or grant to take place without the need for consent in the circumstances specified in the paragraph. Both of these allow for the transfer or grant of powers under the deemed marine licence. Article 7(4) requires the Secretary of State to consult with the MMO before giving consent to the transfer or grant to another person of the benefit of either deemed marine licence. Article 7(11) disapplies sections 72(7) and (8) of the Marine and Coastal Access Act 2009 in relation to a transfer or grant of the benefit of the deemed marine licence. The drafting in the draft DCO reflects a long-established precedent regarding the transfer of DCO powers and deemed marine licences that has been endorsed by the Secretary of State many times, including most recently in the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. Where a transfer of the deemed marine licence is sought under Article 7(2), the Secretary of State would consider the appropriateness of the party to whom the transfer or grant is proposed and would also take into account any representations made by the MMO before determining whether to grant consent. From the procedural perspective it is important that the DCO and any deemed marine licence can be transferred together using the process set out in Article 7. It is considered important that the timing of any transfer or grant of powers/authorisations under the DCO and DMLs be aligned, as there is considerable overlap between the authorisations and the requirements/conditions. This justifies a departure from the procedure under the Marine and Coastal Access Act 2009. Having deemed the marine licence in the DCO, it is also appropriate that any transfer under the Order include the deemed marine licence as part of the wider transfer – it is one element of the wider order powers and should not be separated out from the authority to construct, operate and maintain the NSIP granted by the Order. The Planning Act 2008 is clear that marine licences may be deemed in a DCO in appropriate areas (s149A) and that a DCO may include such further provisions ancillary to the operation of that DML (s122(3)), including transfer along with the benefit. Section 122(5)(a) and (c) set	

	transfer to the transferee the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be agreed between the undertaker and the transferee; and (b) where an agreement has been made in accordance with paragraph (2)(b), grant to the lessee for the duration mentioned in paragraph (2)(b), the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be so agreed." The MMO considers that this is a clear departure from the 2009 Act, which would normally require the licence holder (here 'the undertaker') to make an application to the MMO for a licence to be transferred. Instead, this provision operates to make the decision that of the undertaker, with the Secretary of State (SoS) providing consent to the transfer, rather than the MMO as the regulatory authority for marine licences considering the merits of any application for a transfer. Parliament has already created a statutory regime for such a process, and it is unclear what purpose the written consent of the SoS actually serves. If the intention is for the undertaker to be able to transfer the benefits under the terms of the DCO outside the established procedures under 2009 Act, the MMO queries why is it considered necessary or appropriate for the SoS to 'approve' the transfer of the DML.	out that a DCO may "apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the order" or "include any provision that appears to the Secretary of State to be necessary or expedient for giving full effect to any other provision of the order". The ability to transfer the DML is related to the deeming and is submitted to be a sensible, expedient part of the wider power to transfer the benefit of the order. There is accordingly no legal barrier to including these provisions in the draft DCO and there is a clear advantage to doing so for the reasons set out above. This has been accepted by the Secretary of State in a number of offshore wind farm DCOs and is well precedented.	

	It is also unclear what criteria the SoS would be taking in determining whether to approve any transfer, and how this would differ from a consent granted by the MMO under the existing 2009 Act regime. Because of this confusion and potential duplication, it is the position of the MMO that these provisions are removed and that any transfer should be subject to the existing regime under the 2009 Act, with the decision maker remaining the MMO. Article 7(2)(b) and 7(3)(b) gives the right to temporarily transfer the benefits of the DCO (including DML) to a third party. Article 7(2)(b) *"grant to another person (the lessee) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be so agreed, except where paragraph (6) applies, in which case the consent of the Secretary of State is not required."* Article 7(3)(b) *"where an agreement has been made in accordance with paragraph (2)(b), grant to the lessee for the duration mentioned in paragraph (2)(b), the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be so agreed."*		

	The MMO resists the inclusion of this article. Here the written consent of the SoS is not required. The MMO does not recognise that this would create a more streamlined system. Rather, it operates simply to create an additional administrative procedure for marine licences (and one not envisaged by Parliament) and with no clarity in how it will operate. The MMO has concerns regarding Article 7(4). Article 7(4) *"The Secretary of State shall consult the MMO before giving consent to the transfer or grant to another person of the benefit of the provisions of licence 1 or licence 2."* The MMO notes that there is no obligation for the SoS to take into account the views of the MMO when providing its consent. Furthermore, there is no obligation for the MMO to be informed of the decision of the SoS, notwithstanding its impact on the MMO as the licencing authority. From a regulatory perspective it is highly irregular that a decision to transfer a licence should not be the decision of the regulatory authority in that area (the MMO), but instead should be subject to such a cursory process as is set out in Article 7(1)-(3). The MMO thus resists this change as unworkable. As explained above, Articles 7 (1)-(3) sets out what is effectively a new non-legislative regime for the variation and transfers of marine licences. In support of these		

	provisions, Article 7(11) explicitly disapplies sections 72(7) and (8) of the 2009 Act, which would otherwise govern these procedures. Article 7(11). *"Section 72(7) and (8) of the 2009 Act do not apply to a transfer or grant of the benefit of the provisions of licence 1 or licence 2 to another person by the undertaker pursuant to an agreement under* this *article."* This conflicts with the MMO's stated position that the DML granted under a DCO should be regulated by the provisions of the 2009 Act, and specifically by all provisions of section 72. Section 72(7)(a) of the 2009 Act permits a licence holder to make an application for a marine licence to be transferred, and, where such an application is approved, for the MMO to then vary the licence accordingly (s. 72(7)(b)). This power that should be retained and used in relation to the DML granted under the DCO and the MMO therefore resists the inclusion of this article 7(11) to disapply these provisions. The key concern held by the MMO is that Article 7 operates to override and/or unsatisfactorily duplicate provision that already exist within the 2009 Act for dealing with variations to marine licences. Such provisions are also inconsistent with the PINS		

	Guidance on how DMLs should operate within a DCO. Advice Note Eleven, Annex B, as referenced in comment 3.3.2, provides that where the undertaker choses to have a marine licence deemed by a DCO, the MMO, "will seek to ensure wherever possible that any deemed licence is generally consistent with those issued independently by the MMO." Article 7 as drafted is not in compliance with this guidance. The MMO objects to the provisions relating to the process of transferring and/or granting the deemed marine licences set out in the draft DCO at Part 2, Article 7 insofar as these are intended to apply to the MMO and requests paragraphs 7(4), 7(8) and 7 (11)be removed in their entirety, with a clarification added to specifically exclude these provisions from applying to the MMO (with corresponding wording amended in the Deemed Marine Licences). The MMO is concerned that the procedure proposed represents an unnecessary duplication of the existing statutory regime set out in s72 of the 2009 Act and that it will give rise to significant enforcement difficulties for the MMO. The MMO also considers that it has the potential to prejudice the operation of the system of marine regulatory control in relation to the proposed development. The MMO also regards the proposed procedure as cumbersome, more		

	administratively burdensome, slower and less reliable than the existing statutory regime set out in s72 of the 2009 Act. To summarise, the MMO considers that little advantage is gained for the Applicant by these provisions, and the tangible risks and disadvantages that it poses can be avoided by retaining the existing statutory regime in full.		
RR-020.17-23	Use of 'Maintain' and 'Materially' The MMO strongly considers that the activities authorised under the DCO and DML should be limited to those that are EIA assessed within the ES, and the statement that activities will be limited to those that 'do not give rise to any materially new or materially different environmental effects' should be updated to clarify this. The MMO considers that wording should be updated to 'do not give rise to any new or different environmental effects to those assessed in the environmental information'. This also applies to the definition of "maintain". The intention behind the EIA legislation is to protect the environment by ensuring that in deciding whether to grant a development consent for a project, and in deciding what conditions to attach to that consent, the decision has full knowledge of what the likely significant environmental effects of the project/development will be. That	The Applicant does not consider that the wording within the definition of "maintain" in each deemed marine licence in schedules 3 and 4 of the draft DCO (AS-003) needs to be updated. The purpose of the EIA Regulations is to identify the likely significant environmental effects that will arise from a project. That facilitates the relevant decision maker making an informed decision on the likely effects of the project before they grant or refuse consent. The detail in an Environmental Statement is not intended to be wholly prescriptive. That is not how the EIA regime operates. In undertaking an EIA, a developer has to make certain assumptions about how the project will be undertaken, particularly in respect of the operation and maintenance phase. Key parameters that underpin the assessment will then be included in the terms of the consent granted. In respect of operation and maintenance activities, the use of the word "materially" reflects that the detail of potential maintenance activities included in an Environmental Statement are based on assumptions. The word "materially" gives a limited degree of flexibility, but would not authorise any activities that would give rise to new or different significant effects. That would clearly be outwith the scope of the deemed marine licence. The Applicant therefore considers the existing definition to be appropriate. It is well precedented in DCOs for offshore wind farms, including East Anglia One North Offshore Wind Farm Order 2022, the East Anglia Two Offshore Wind Farm Order 2022, the Norfolk Boreas Offshore Wind Farm Order 2021, the Norfolk Vanguard Offshore Wind Farm Order 2022.	Please see MMO comments within section 2 of this document regarding the use of maintain and materially.

	knowledge then guides the consent process and what conditions, if any, to attach to the consent. Additionally, there is considerable public consultation under the EIA legislation process because the process recognises the importance of local knowledge in environmental decision making. The EIA legislation was designed to apply to those plans/projects which could be sufficiently detailed and particularised at the application stage, to allow the consenting decision to be taken in the full knowledge of what the likely significant effects of that plan or project would be. In such circumstances, it would be unnecessary to create a legal obligation under the order which requires the activities to remain within what was assessed within the ES under the EIA legislation. This is because the consent authorises the detailed and well particularised project, assessed in the ES, to be carried out, and, therefore, providing the development is constructed as per the consent, those works would, by default, remain within the parameters of the EIA assessment. The difficulty identified with assessment of environmental impact, as was discussed in the Rochdale Envelope case, is that to deal with an outline planning case, where the project will flex over time, you need to undertake the assessment at the		

	outline permission stage when there is not enough detail to identify properly what the final design of the project will actually be. In the case of Rochdale, the court was saying things could remain flexible providing the assessment of environmental impact took account of the need for evolution of the project over time and assessed the likely significant effects within clearly defined parameters, and then the consent granted imposed conditions to ensure that the process of evolution kept within the parameters of the assessment of environmental impact. Whilst there might not be an express provision that you can point to in the legislation that says that a project cannot exceed the effects assessed in the assessment, it is implied (or the purpose of EIA would be undermined) and the Rochdale case discusses this. In this DCO and the DML, the Applicant is wanting flexibility in terms of the design details (both in terms of some of the construction details, and in relation to some of the maintenance activities). Where those design details are not finalised at the application stage, the Applicant is wanting to retain some flexibility and is proposing that the works that can be carried out should be restricted to those which do not give rise to materially new or materially different environmental effects to those assessed in the ES. The concern with this is that the inclusion of the word materially here		

	would allow the undertaker to carry out works whose effects are outside of the likely significant effects assessed in the ES, providing they do not do so materially, that is, in any significant way, greatly, or considerably. This is not what the purpose of the EIA process is, and it runs contrary to the purpose of EIA. In addition, whilst the undertaker is responsible for producing the environmental information and statement on which the EIA decision is based, the appropriate authority is responsible for the EIA consent decision. The inclusion of the word materially means essentially that the undertaker makes the decision as to what is and what is not material. Under EIA legislation it is for the appropriate authority to determine what the likely significant effects will be, and how those should be mitigated. The MMO does not consider that it is appropriate to use the word 'material' in these circumstances. If the Applicant wants the flexibility of not being prescriptive about the design from the start, the Order, and the DML granted through it, should restrict works which can be carried out to those which do not give rise to any new or different environmental effects to those assessed in the ES.		
RR-020.24	**Schedules 3 and 4** Paragraph 7 of Part 1 which refers the provisions of section 72 should be removed in its entirety.	As set out in more detail above, the Applicant is seeking to disapply sections 72(7) and (8) of the Marine and Coastal Access Act 2009. This paragraph provides clarity that the remainder of that section remains applicable to each DML. Therefore, no amendment is proposed.	Please see MMO comments within section 2 of this document regarding the provisions of section 72.

RR-020.25	For regulatory certainty and consistency with other DMLs, the MMO proposes that Paragraph 9, Part 1 is amended to state the following: Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statements. Such agreement may only be given where it has been demonstrated to the satisfaction of the MMO that it will not give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.	The Applicant has reviewed the wording in paragraph 9, Part 1 of each DML and considers that this is substantively the same as that requested by the MMO. Therefore no amendment is considered necessary.	The MMO does not agree with the Applicant's response. These changes are necessary to ensure that the power to amend or vary is consistent with the requirements of the EIA regime as explained in the case of R. (Barker) v Bromley LBC [2007] 1 A.C. 470. That case concluded that EIA will be required at stages subsequent to an initial grant of consent where those likely significant effects were not identified at the earlier consenting stage. It follows that a mechanism to permit a variation or amendment will not be lawful until it prevents any possibility of a materially new or different significant environmental effects arising as a result of the variation or amendment. The MMO notes that the Applicant informed the MMO during a meeting dated 21 October 2024 that Paragraph 9 will be amended as requested. The MMO will review the updated DML once submitted and if updated would consider this point to be resolved.
RR-020.26-27	**Determination Dates** The MMO strongly considers that it is inappropriate to put timeframes on complex technical decisions of this nature. The time it takes the MMO to make such determinations depends on the quality of the application made, the complexity of the issues, and the amount of consultation the MMO is required to undertake with other organisations to seek resolutions. The MMO's position remains that it is	The Applicant will continue discussions with the MMO about timings for submission of documents for approval in terms of conditions in the deemed marine licence. Including timescales within the conditions of the deemed marine licence provide a degree of certainty to the Applicant when it is discharging conditions to allow works to commence. The timeous discharge of conditions is important to ensure that the Applicant can meet its construction programme. The Applicant notes that it is well precedented in offshore wind DCOs for such timescales to be included in conditions of a deemed marine licence.	The MMO acknowledges the Applicant's comments. The MMO believes a timescale to discharge a document is inappropriate. The MMO has internal Key Performance Indicators (KIPs) which work towards a 13-week turn around. The MMO will never unduly delay but cannot be bound by arbitrary deadlines imposed by the Applicant since this would potentially prejudice other licence applications by offering expediency to the Applicant at the

	inappropriate to apply a strict timeframe to the approvals the MMO is required to give under the conditions of the DML given this would create disparity between licences issued under the DCO process and those issued directly by the MMO, as marine licences issued by the MMO is not subject to set determination periods Whilst the MMO acknowledges that the Applicant may wish to create some certainty around when it can expect the MMO to determine any applications for an approval required under the conditions of a licence, and whilst the MMO acknowledges that delays can be problematic for developers and that they can have financial implications, the MMO stresses that it does not delay determining whether to grant or refuse such approvals unnecessarily. The MMO makes these determinations in as timely a manner as it is able to do so. The MMO's view is that it is for the developer to ensure that it applies for any such approval in sufficient time as to allow the MMO to properly determine whether to grant or refuse the approval application.		expense of other applications. It is also unclear what consequences would result if this deadline was not met, and how that would impact on the MMO's regulatory function. The MMO would highlight that this has been requested by the MMO since the Hornsea Project Three Offshore Wind Farm Examination. Since this examination, there is even more of a concern that more and more time is being spent working to determine documents submitted. There are a number of instances on projects where the submission at the four or six month date does not include everything that is required or within the outline plans and is more of a compliance requirement to ensure something is submitted in line with the consent. This leads to requests for additional information and multiple rounds of consultation and updates to ensure enough information is provided for the MMO to make a determination. It is becoming increasingly difficult to review the first submission of a document and therefore delays to the determination could cause significant impact to both the MMO and the Applicant. In relation to precedented timescales within other offshore wind DCOs. The MMO, of course, accept that there is a need for consistency in decision making. However, a decision maker is not bound by previous decisions and can depart from them where there is good reason to do so. The MMO would reiterate that it does not delay approvals unnecessarily and

			believes more realistic timescales should be included to allow for the Applicant to account for this within their programming. However, without prejudice to this position, the MMO believes that if time scales are included within the DML for plans then these should be six months not four months and is open to discussions on which documents must be six months and which documents could be four months to take into account the concerns that the Applicant may have. The MMO will continue to work with the Applicant to advise on any plans or documents that could have a four-month timescale.
RR-020.28	**Additional Conditions** Condition 13(3) uses the following wording: "13(3) An operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan" The MMO requests that the word 'substantially' is removed from this condition as it is not required.	The Applicant considers that the word 'substantially' is a reasonably qualifying term to include in this sub-paragraph. It reflects the fact that the final offshore operations and maintenance plan may not fully align with the outline version submitted with the application (e.g. additional measures could be added to reflect updates to the project) but must be broadly in the same terms. Ultimately, the MMO will retain control on whether or not the terms of the final plan submitted to it are acceptable. As such, no amendment to this sub-paragraph is proposed.	The MMO believes that 'in accordance' is enough to allow any changes to the operations and maintenance plan. The outline operations and maintenance plan must have the minimum requirements the MMO and other Interested Parties believe is required at this stage. The inclusion of 'substantially' does not provide any additional requirements of the condition and is a surplus requirement. The MMO would highlight that although each case is reviewed on a case by case basis this wording has not been used in similar Offshore Wind DCOs granted recently. The MMO notes that the Applicant informed the MMO during a meeting dated 21 October 2024 that the condition wording will be amended as requested. The MMO will review the updated DML once

			submitted and if updated would consider this point to be resolved.
RR-020.29	**Maintenance of the Authorised Scheme** Condition 13(4) refers to activities being carried out with accordance with a plan. The MMO assumes that this plan is the operations and maintenance plan referenced in 13(3) however the DML contains a number of plans. The MMO requests that the wording is amended making it explicit for the avoidance of doubt. For example: All operations and maintenance activities must be carried out in accordance with the approved plan approved under sub-paragraph (3).	The Applicant will update condition 13(4) of the next version of the draft DCO as suggested.	The MMO welcomes this update.
RR-020.30	**Notifications and Inspections** Should the undertaker become aware that any of the information on which the granting of this licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing	The Applicant will update the condition in the deemed marine licence in the next version of the draft DCO that is submitted during the Examination to reflect this request.	The MMO welcomes this update.

	what information was materially false or misleading and must provide to the MMO the correct information. The MMO, in addition to being informed of cable damage, destruction and decay further requires a notification of cable repair. The MMO has provided the following wording for condition 15(11): The undertaker must ensure that the MMO, the MMO Local Office, local fishermen's organisations, and the Source Data Receipt Team at the UKHO Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of each instance of cable repair, replacement or protection replenishment activity.		
RR-020.31	**Adaptive Management** The MMO requests that the following conditions be added to the post-construction monitoring and surveys condition (condition 29 of Schedules 3 and 4) to allow the Applicant to provide potential solutions when reviewing the results of monitoring, to be discussed with the MMO and Statutory Nature Conservation Bodies (SNCB). "(6). In the event that the reports provided to the MMO under sub-paragraph (3) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed." "(7). In the event that monitoring reports provided to the MMO under subparagraph (3), identifies impacts which are beyond those predicted within the Environmental Statement/Habitat	The Applicant notes that a similar condition was included within the recently granted Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024 following a recommendation by the Examining Authority on that application. That recommendation related specifically to concerns raised about the impact of that project on sensitive habitats and species. The Environmental Statement has not identified any likely significant environmental effects that would require ecological post-construction monitoring or need for potential adaptive management beyond that already included in condition 29. The Applicant does not consider any amendment to this condition to be necessary.	The MMO has noted the Applicant's comments and although the condition was included due to 'the impact of that project on sensitive habitats and species.', if any monitoring shows an impact higher than predicted within the Environmental statement the MMO may require additional monitoring or mitigation at the post consent stage. The MMO will review the monitoring requirements and condition and provide further updates in due course.

	Regulations Assessment, adaptive management/mitigation may be required. An Adaptive Management/Mitigation Plan to reduce effects to within what was predicted within the Environmental Statement/Habitat Regulations Assessment, unless otherwise agreed in writing by the MMO, must be submitted alongside the monitoring reports submitted under sub-paragraph (3), including timelines and associated monitoring to test effectiveness. This plan must be agreed with the MMO in consultation with the relevant SNCBs to reduce effects to a suitable level for this project. Any such agreed or approved adaptive management/mitigation should be implemented and monitored in full. In the event that this adaptive management/mitigation requires a separate consent, the Applicant shall apply for such consent." The conditions ensure that all parties are clear what is required if the monitoring shows higher impacts than predicted during the assessment stage.		
RR-020.32	**Provisions on Variations and Approvals** With respect to any condition which requires the licensed activities to be carried out in accordance with the plans, protocols or statements approved under this licence, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO. Subsequent to	The Applicant considers that this is secured by paragraph 9 of each of deemed marine licence within schedules 3 and 4 of the draft DCO (AS-003)	The MMO notes this and will review and provide any additional comments in due course.

	the first approval of those plans, protocols or statements provided, it has been demonstrated to the satisfaction of the MMO that the subject matter of the relevant amendments does not give rise to any materially new or materially different environmental effects to those assessed in the environmental information.		
RR-020.33	**Conditions to Remove Force Majeure** The MMO does not consider that this provision is necessary as section 86 of the 2009 Act provides a defence for action taken in an emergency in breach of any licence conditions. The MMO requires justification or rationale as to why this provision is considered necessary.	This condition and section 86 of the Marine and Coastal Access Act 2009 serve slightly different purposes. This condition imposes a duty on the undertaker to notify the MMO of the circumstances of such a deposit. This ensures that the MMO is provided with that information. Section 86 of the 2009 Act does not contain any such duty. It simply acts as a defence in the event a person is charged with an offence.	The MMO has previously requested the removal of this clause. That is because it unnecessarily duplicates the effect of s.86 of the 2009 Act. The MMO welcomes the applicant's comments regarding Force Majeure in point RR-020.33 of document PD1-017 regarding the Applicant's response to Relevant Representations. The MMO is currently reviewing the Applicant's comment and will provide a response in due course.
	Coastal Processes		
RR-020.34	The MMO has focused its review on the following chapters of volume 1 and volume 2 of Morgan Offshore Wind Project: Generation Assets Environmental Statement (ES). However, the MMO has also reviewed the accompanying reports in Volume 3 and relevant technical reports in Volume 4 where required: Volume 1, Chapter 1: Introduction Volume 1, Chapter 3: Project Description Volume 2, Chapter 1: Physical Processes Volume 2, Chapter 2: Benthic Subtidal Ecology	This is noted by the Applicant. The Applicant has responded to all comments raised by the MMO.	The MMO welcomes the Applicants Response and has provided further comments below.

	Volume 2, Chapter 3: Fish and Shellfish Ecology Volume 2, Chapter 4: Marine Mammals Volume 2, Chapter 5: Offshore Ornithology Volume 2, Chapter 6: Commercial Fisheries 4.1.2 An up-to-date schedule including specific timings and dates for each of the proposed works must be provided to the MMO. The MMO must be further informed of any updates, or changes to the schedule, prior to the commencement of the works, to ensure an effective inspection can occur.		
RR-020.35	The MMO has noted that three potential impacts have been scoped out of the ES. These are: changes to bathymetry due to depressions left by jack-up vessels; changes to sediment transport due to depressions left by jack-up vessels; and scour of seabed sediments during the construction and operations and maintenance phases.	This is noted by the Applicant.	No further Comment
RR-020.36	The MMO notes that there have been discussions with Natural England (NE) and other stakeholders over the exclusion of scour impacts from the ES. Whilst it is acceptable for it to be scoped out, the MMO requires clarity on why this is. The MMO recommends that a discussion at the ES stage of the qualitative magnitude of scour in comparison to the volumes of scour protection proposed should be provided. Whilst secondary scour is discussed in Section 1.9.5 of Volume 2, chapter 1, there are no estimations	The impact assessment presented in Volume 2, Chapter 1: Physical processes (APP-013) was undertaken by application of the maximum design scenario in line with the agreed methodology outlined in Volume 1, Chapter 5 Environmental impact assessment methodology (APP-012). In terms of potential changes to wave climate, tidal flow and sediment transport regimes this included to provision of scour protection for all foundation types and locations. The volume and extent of scour protection material outlined within Volume 1, Chapter 3: Project description (APP-010) is based on conservative values. For example, scour protection is extended to 3.5 times the external diameter of the structure and the scour protection height of 2.5m includes a 10% contingency. The maximum volume and extent of scour protection material outlined within Volume 1, Chapter 3: Project description (APP-010). The assessment of impacts with scour protection absent was therefore scoped out, and this was with the	The Applicant's response to the request for extent estimations is reasonable: the scour protection will depend on the foundation type that has not been agreed on yet. The MMO requests that the Applicant explicitly states that the comment RR-020.36 will be addressed or please refer to a relevant document that already addresses it.

	of extents, which the MMO recommends adding.	agreement of NE and other stakeholders through scoping and consultation via the EWG. It is noted that consented OWF developments such as Awel y Môr and Hornsea Three undertook a similar approach to that adopted for Morgan Generation whereby scour protection was included as standard within modelling studies and impact assessments as part of the in-built mitigation. The need and potential extent of scour protection measures will be dependent on the foundation type, geometry and location (i.e. seabed and hydrographic conditions). At the detailed design stage the magnitude of potential scour in relation to the proposed measures will be balanced. Secondary scour has been assessed within the context of impacts to sediment transport and sediment transport pathways due to presence of infrastructure in section 1.9.5 of Volume 2, Chapter 1: Physical processes (APP-013) for the operations and maintenance phase. Where scour protection measures are to be furnished, they will be subject to engineering design to ensure they minimise as much as practical the occurrence of scour. Therefore, any residual/secondary scour would be very localised and of negligible magnitude; typically confined to within a few metres of the direct footprint of that scour protection material. The detail of design and construction will be outlined within the Offshore Construction Method Statement (CMS) developed in consultation with MMO and construction cannot commence until the CMS is submitted and approved by the MMO	
RR-020.37	The MMO requests that scour be considered in terms of the potential impacts it may have on sediment pathways, and additionally, the downstream impacts of scour or the use of scour protections (with secondary scour). An understanding of the qualitative impacts of scour and use of scour protection methods should be presented in a similar way to how secondary scour is discussed in the report. This would be highly beneficial to the ES and would help appease any concerns over scour impacts	Morgan Generation Assets are located within an area of active sediment transport which may reduce the equilibrium scour depth as there is a consistent sediment supply. The seabed mobility study undertaken for the Morgan Generation Assets (ABPmer, 2023) observed that in practice, the actual scour depth that might develop (without the provision of scour protection) is likely to be less than the theoretical equilibrium (unconstrained) values, due to the thickness of erodible sediment present being typically less than the predicted full equilibrium depth of scour. Although this situation may limit the depth of the scour hole, as sediment supply is not available at the lee of the structure the scour hole may become further elongated. In this circumstance the seabed characteristics would also be altered within the vicinity of the structures i.e. from the Holocene sediments currently on the seabed to the Irish Sea Formation below. Please refer to the previous comment RR-020.36 for further detail regarding the assessment of scour potential. The detail of design and construction	The Applicant cites another report (ABPmer, 2023) saying that there is limited amount of sediment to be scoured, hereby limiting the maximal scour depth. Furthermore, and similarly to RR-020.36, the final design has not been agreed, so they cannot calculate potential scour. The MMO is content that the Applicant will submit an Offshore Construction Method Statement (CMS) developed in consultation with MMO and construction cannot commence until the CMS is submitted and approved by the MMO. The MMO will look to include this as a condition on the DML.

		will be outlined within the Offshore Construction Method Statement (CMS) in consultation with MMO, with scour protection measures being subject to engineering design to ensure they minimise as much as practical the occurrence of scour. The exact parameters will be site specific and related to both the infrastructure type and scour protection approach, e.g. separate filter and amour layers, provision of a falling apron, or a composite solution. The site specific metocean data and seabed surveys provide appropriate data for designing suitable measures. It is also recognised that with the application of conservative volumes and extents of scour protection (as noted in the previous comment RR-020.36) have been applied within the context of physical processes and have been assessed in Volume 2, Chapter 1: Physical processes (APP-013). Ultimately the need, volume and extent may be reduced during the detailed design process as provision of excess quantities or oversizing of scour protection material can prove less effective.	
RR-020.38	Table 1.7 of volume 2, chapter 1, lists the desktop review of existing studies and datasets which the MMO considers to be appropriate and recent in timelines. Table 1.8 also summarises site-specific surveys which have been undertaken between 2021 and 2022, which includes Metocean surveys and multibeam backscatter. The MMO would expect such data sources to be included and consider it to be a good data source.	The Applicant welcomes and notes your response that the studies listed in Table 1.7 of Volume 2, Chapter 1: Physical processes (APP-013) are appropriate and have been undertaken in recent timelines. The Applicant has included these surveys and studies listed in Table 1.7 and Table 1.8 within the Environmental Impact Assessments and the Applicant is pleased the MMO consider these to be good data sources.	The Applicant's response agrees with the comment, so the issue can be considered as resolved.
	Dredge and Disposal		
RR-020.39	The MMO notes that ballast for the gravity bases, as referenced in document J12, is to potentially include rock gravel crushed concrete aggregate high density rocks or possibly dredged sand or other seabed material from site preparation at each gravity base location within the Morgan Array Area.	The Applicant notes your response. A draft of the decommissioning plan for the Morgan Generation Assets will be submitted with the decommissioning programme prior to construction commencing. The decommissioning plan and programme will be updated during the Morgan Generation Assets lifespan to take account of changing good practice and new technologies. The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning.	The MMO notes that the Applicant will provide a draft decommissioning plan for the Morgan Generation Assets to be submitted with the decommissioning programme prior to construction commencing. The MMO is content with this provided that the decommissioning programme is updated during the Morgan Generation

	The MMO advises that any decommissioning plan provided should have a clear strategy for how such materials are to be recovered and re-used or disposed.		Assets lifespan to take account of changing good practice and new technologies and that the scope of the decommissioning works are determined by the relevant legislation and guidance at the time of decommissioning.
RR-020.40	The MMO considers that appropriate chemical contaminant analysis has been undertaken across the array area, as outlined in Volume 4, Annex 2.1, Appendix F.	The Applicant notes and welcomes the response.	No further action required
RR-020.41	Document J6, 'Mitigation and Monitoring Schedule', indicates that there are no overall significant effects noted in terms of physical processes regarding monitoring cables and their burial status, however the MMO notes that this will be secured by means of the Offshore in Principle Monitoring Plan via a condition in the DML. Mitigation and monitoring should include notification to the regulator where there is potential for chemicals used in the construction operation maintenance and decommissioning of the offshore windfarm to have a pathway to the marine environment. This must include those chemicals used within closed systems that require frequent top up, and full details of the risk and justification for use of chemicals must be provided. The MMO advises that monitoring should consider: impacts to sediment transport and sediment transport pathways due to cable burial, and presence of infrastructure and associated potential impacts to physical features and bathymetry; future changes in sediment	In relation to monitoring of the cables and their burial status, as set out in the Mitigation and monitoring schedule (APP-076), no significant effects have been identified for physical processes and therefore no specific monitoring is recommended beyond routine inspections of inter-array and interconnector cables to ensure the cables are buried to an adequate depth and not exposed. The deemed marine licences within the draft Development Consent Order (AS003) includes a condition requiring an offshore construction method statement to be submitted to and approved by the MMO prior to commencement of construction, which is to include details of cable monitoring including details of cable protection which includes a risk-based approach to the management of unburied or shallow buried cables over the project lifetime. Monitoring of cables and their burial status is also secured through the monitoring plan required as a condition in the deemed marine licences within the draft Development Consent Order (AS-003). An Offshore Environmental Management Plan will be developed post-consent, to include details of a chemical risk assessment, that shall include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance.	The MMO notes the Applicant's response and further states that, in line with OSPAR guidance, properties of the chemicals paints and coatings used should be notified to the MMO for approval prior to use. This request was incorporated into the MMOs Relevant Representation **RR-020.41** regarding the Mitigation and Monitoring Schedule.

	movements on the burial of cables; potential fisheries impacts, including the cables and their burial status with annual reviews for the first five years of the operational phase (and review VMS data to relate to fishing). However, detailed comments can be provided once the plans are produced following the production of the final scheme design.		
RR-020.42	Volume 1, Chapter 3, section 3.5.8 details scour protections for foundations, and their justification. An option is for the use of concrete mattresses with linked polypropylene rope lattice, and artificial fronds mattresses made of continuous lines of overlapping buoyant fronds consisting of polypropylene or similar. The frond lines are secured to a polyester webbing mesh base that is itself secured to the seabed by a weighted perimeter or anchors pre-attached to the mesh base. The section states that Seabed Scour Control Systems (SSCS) Frond Mats installed in the North Sea in 1984 remain in place today and have required no maintenance since being deployed, as the mats are designed not to degrade with time (SSCS, 2022). The MMO is considering the risks of placing plastic infrastructure into the marine environment should the infrastructure degrade. The MMO is also aware that the final design of these frond mattresses will be detailed in the Offshore Construction Method Statement that will be submitted to and approved by the	The Applicant acknowledges the MMOs consideration of the risks associated with the introduction of plastic infrastructure. The selection of scour protection methods, where required, will be evaluated and further considered post-consent in the Offshore Construction Method Statement, focusing on both engineering and suitability and environmental recoverability. The Offshore Construction Method Statement will be developed through consultation with the MMO and is secured in Condition 20(1)(d) of Schedule 4 of C1 Draft development consent order (AS-003).	The MMO welcomes this approach and will work with the Applicant.

	MMO prior to commencement of the development.		
RR-020.43	The MMO considers that is not clear from sections 1.5.1.15 to 1.5.1.21 of Volume 4, Annex 2.1 whether the methods used for the preparation of the trace heavy metals for analysis are suitable for the results to be compared to the UK action levels, OSPARs background assessment concentrations, or Canadian quality standards. Therefore, the comments on levels of contaminants cannot wholly be accepted, as depending on the extraction method, the concentration level in the sample will vary. The MMO advises that information on extraction methods should be provided in the ES, ensuring that only methods matching those used to determine the relevant sediment quality guideline be followed.	Samples collected for trace metal analysis were stored in glass jars that had been pre-cleaned with the appropriate solvents, as required in the MMO guidance on 'Marine Licensing: sediment analysis and sample plans' (MMO, 2023). The samples were also stored frozen in line with the requirements of the same MMO guidance. Trace metal analyses was undertaken by the MMO validated laboratory SOCOTEC UK Limited via Aqua-regia extraction followed by inductively coupled plasma-mass spectrometry (ICP-MS) analysis, following the MMO-certified method and the MMO specification (MMO, 2018). This method was used for samples acquired in the environmental baseline surveys in 2021 and 2022 and is aligned with the methodology suitable for comparison with UK action levels. Aqua regia extraction of As, Cd, Cr, Cu, Hg, Ni, Pb and Zn was carried out. Approximately 1 g of air-dried and ground (particle size ranges could be extended beyond 5 µg/g-by dilution. Methods were statistically controlled using both process and instrument quality control samples. Both are sourced independently from the solution used to calibrate the method. Instrument and process blank solutions are also run at regular intervals (with each batch) to monitor potential sources of contamination. The metals As, Cd, Cr, Cu, Hg, Ni, Pb and Zn were determined by ICP-MS. The spectrometer was calibrated using seven different concentrations of matrix-matched standards made from dilutions of 10 g/l spectroscopic standard solutions. Target analyte concentrations were measured by direct comparison to the internal standard with the nearest mass ionisation properties, to take into account changes in plasma conditions as a result of matrix differences between standards and samples. The ICP-MS method detected the following metals above the described limits of detection: Arsenic (0.5 µg/g) Cadmium (0.04 µg/g) Chromium (0.5 µg/g) Copper (0.5 µg/g) Nickel (0.5 µg/g) Lead (0.5 µg/g) Zinc (2 µg/g) Mercury (0.01 µg/g). Quality control consisted of running full method blanks together with one inhouse reference material or certified reference material where required, and one duplicate sample per batch of twenty samples. Instrument performance was monitored by the use of instrument blanks, continuing calibration checks and independent calibration checks. Instrument and process blank solutions were also run at regular intervals (with each batch) to monitor potential sources of contamination. The methodology adopted is aligned with the methodology suitable for comparison of the results against the relevant	The MMO welcomes the confirmation of the collection storage and methodology to be undertaken for the analysis of samples by relevant validated laboratories. In addition, The MMO notes a good description of the analysis for trace heavy metals analysis showed the results would be appropriate for use with comparison to England's agreed action levels for dredged material. The MMO is continuing to discuss the disposal site designation with the Applicant so this can be stipulated within the DML and will provide the ExA an update in due course.

		UK sediment quality guidelines (i.e. UK/Cefas action levels). Recent studies have been revising these action levels (AL) with the goal of reducing the range of concentrations falling between AL1 and AL2 and minimising the number of samples requiring ad hoc decisions; however, no policy has been made yet based on recommendations from these studies. As a result of this, the results were compared to multiple guidelines/standards (ALs as well as the Canadian threshold effect level and probable effect level) to determine the level of contamination.	
	Benthic Ecology		
RR-020.44	The MMO raised previous comments concerning the Preliminary Environmental Information Report (PEIR) with regard to the cumulative impact of the Morgan Offshore Windfarm and the introduction of artificial structures into areas of predominantly soft sediments leading to increased risk of introduction and spread of Invasive Non-Native Species (INNS). The MMO has noted that Table 2.32 in volume 2, chapter 2 of the ES includes an assessment of the potential impacts from INNS at each of the construction, operation and maintenance, and decommissioning phases of the proposed development.	The Applicant notes this response	No response required
RR-020.45	The MMO has no concerns regarding the scoping out of accidental pollution during construction, operations and maintenance, and decommissioning due to the commitment to implement industry good practice standards (International Convention for the Prevention of Pollution from Ships), and adherence to the plans set out in the Environmental Monitoring Plan and Marine Pollution Contingency	The Applicant notes this response and welcomes the MMOs agreement that the likelihood of accidental spill is low and the measures put in place will prevent an increase in the magnitude of any spill	No response required

	Plan. The likelihood of an accidental spill is therefore low, and the measures put in place will act to prevent an increase in the magnitude of any spill.		
RR-020.46	Recent research has shown that antifouling paint particles fundamentally alter sediment microbial communities (Tagg et al. 2024), and the input of paint flakes from Wind Turbine Generator (WTG) maintenance is likely to be highly localised and persistent over the lifetime of the Project. The MMO advocates for the monitoring of a subset of WTGs to assess the prevalence/ abundance of paint flakes in surrounding sediments and suggest that an assessment of surficial sediment bound paint flakes should be considered in pre- and post-construction monitoring so that a robust assessment can be made of the sediment bound paint flakes before and after construction.	The impact associated with accidental pollution during construction, operations and maintenance and decommissioning was scoped out of the Environmental Statement for benthic ecology receptors following agreement from stakeholders in the scoping opinion. Additionally, the risk associated with pollution is proposed to be managed through measures set out in the Offshore Environmental Management Plan (EMP) and Marine Pollution Contingency Plan (MPCP). Therefore, no further assessment or monitoring of this impact has been proposed.	An assessment of the prevalence / abundance of sediment bound paint flakes pre- and post-construction would further our understanding of this potential impact on benthic ecology. However, the MMO notes that no further assessment of this impact has been proposed. This is in line with other similar developments where Applicants have not been required to undertake additional monitoring or research. Adequate sampling of the pre-construction condition is a pre-requisite for robust comparison with post-construction condition and the MMO requests the Applicant to seek opportunities for collaboration between researchers and industry to ensure that the opportunity to investigate this relatively recently identified potential impact to benthic ecology (see Tagg et al. 2024) is not missed. The MMO have advised the Applicant that MMO.BE.5 in the Statement of Common Ground (SoCG) can be changed to 'agreed' as there is an agreement to the scoping of impacts for the EIA for Benthic Subtidal and Intertidal Ecology.
RR-020.47	The MMO notes that no specific monitoring has been proposed to test the predictions made within the impact assessment regarding benthic ecology receptors. However, the MMO acknowledges that an Offshore	Monitoring related to undertaking maintenance activities is outlined in the Offshore in-principle monitoring plan (APP-066). Any suitable DDV data available from this monitoring will be reviewed for the identification of INNS in accordance with the INNS Management Plan which will be included in the Offshore EMP (subject to data quality).	The MMO welcomes the Applicant's commitment to review suitable imagery acquired during monitoring related to maintenance activities for the presence of Invasive Non-Native Species (INNS) which will allow for an assessment of

	in Principle Monitoring Plan (document J11) has outlined associated monitoring that may offer indirect assessment. The MMO recommends that the post-construction assessment of wind turbine generator foundations includes sample collection, in addition to seabed imagery, to identify Invasive Non-Native Species accurately in the attached macroinvertebrate assemblage.	No further INNS monitoring is proposed as no significant effect from INNS was predicted within the Environmental Statement, therefore further monitoring is not considered to be required.	unambiguous INNS. However, the presence of cryptic INNS will not be adequately assessed through review of this imagery alone. The MMO notes that no significant effect from INNS was predicted within the Environmental Statement because of the Applicants commitment to adopt measures which act to reduce the likelihood of introduction of INNS. However, should INNS be identified during review of the imagery, the MMO requests that the Applicant reconsiders the collection of samples to: 1) confirm species identification and; 2) understand the fouling assemblage more fully to include cryptic INNS
	Fish Ecology		
RR-020.48	One of the concerns the MMO raised at PEIR stage was the approach to the underwater noise (UWN) assessment, including the modelling and evidence base used to inform the assessment for behavioural responses to hearing sensitive fish, such as herring and cod. The MMO raised several clarifications relating to maximum design scenario (MDS) for the project upon which much of the UWN impact assessment was based.	The Applicant notes this response	The Applicant has noted the observations made and provided clarification that the parameters used to define the Maximum Deign Scenarios (MDS) for each impact assessment carried out in the ES are selected from the project design envelope to represent the with the maximum effect for a particular impact and receptor topic. This is acceptable and the MMO thanks the Applicant for clarifying this.
RR-020.49	The MMO notes that the project design envelope has been refined since PEIR. The use of monopile foundations for both turbines and Offshore Platforms (OSPs) has been removed following geophysical and geotechnical surveys and studies.	The Applicant notes this response	Please see response to RR-020.48 above

	Tables 3.10 to 3.12 in Volume 1 Chapter 3 now state the MDS for piling activities is now a maximum of 96 turbines and four OSPs.		
RR-020.50	The MMO has identified inconsistencies between the MDS outlined in the project design (Volume 1, Chapter 3), and MDS used to inform the impact assessment in the fish ecology chapter (Table 3.18 and Table 3.32, Volume 2, chapter 3). MMO requests that clarification is provided on the comments presented in points 4.5.4 to 4.5.6.	It should be noted that the Maximum Deign Scenario (MDS) presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) has been selected from the project design envelope. For each of the impacts assessed within the topic chapters, the MDS is identified from the range of potential options for each parameter to identify the scenario with the maximum effect for a particular impact and receptor topic. This approach ensures that the scenario with the maximum potential for effect is assessed for each specific impact to ensure future design finalisation falls within the envelope assessed. Volume 1, Chapter 3: Project description (APP-010) presents the maximum design parameters for the Morgan Generation Assets, however each of these parameters does not necessarily reflect the realistic worst case scenario that has been applied for each individual topic. Clarification has been provided on the specific inconsistencies highlighted in points 4.5.4 to 4.5.6.	Please see response to RR-020.48 above
RR-020.51	Table 3.11 in Volume 1, Chapter 3 states that the pin diameter for pin piled jacket turbine foundations to be 5.5 metres (m) instead of the 3.8m diameter stated in the impact assessment in the fish ecology chapter (Volume 2, chapter 3). The MMO considers that this undermines the confidence in the modelling presented in Figures 3.4 to 3.7 (Volume 2, chapter 3), as the UWN contours indicating the range of impact will be larger for larger piles.	The maximum pin pile diameter considered for the Morgan Generation Assets is 5.5 m, as outlined within Volume 1, Chapter 3: Project description (APP010). Underwater sound modelling presented in Volume 1, Annex 3.1: Underwater sound technical report (APP-028) was based upon the greatest pin pile diameter of 5.5m. The results of this modelling were used to inform section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) to assess the potential for injury and behavioural effects to fish and shellfish receptors over spatial ranges. All contours and impact ranges presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are based upon a 5.5m diameter pile (see paragraph 3.9.3.23) with full details of the modelling undertaken presented within Volume 1, Annex 3.1: Underwater sound technical report (APP-028).The MDS for fish and shellfish ecology receptors for the impact of underwater sound from piling is based upon the greatest number of piling events (i.e., days of piling) and therefore uses the scenario with the most piles, which is based upon a pile diameter of 3.8m (see below to demonstrate the difference in pile numbers between the two OSP options queried). However, the Applicant notes that 5.5m is the maximum pile diameter given in Volume 1, Chapter 3: Project description (APP-010) and is what has been used in the modelling of underwater sound injury	The MMO is content that the MDS for impacts to fish receptors from UWN as a result of piling is appropriate.

		ranges. The fish and shellfish ecology assessment has presented the MDS in terms of number of piles, but used 5.5m impact ranges. Therefore, the assessment is highly precautionary and conservative, and in reality, impacts will be well within the MDS which has combined the worst temporal scenario with larger pile diameters. The piling scenario which resulted in the greatest temporal effect (114 days) was found to be for installing: 64 x 4-legged jacket wind turbine foundations (1 x pile per leg), resulting in 256 x 3.8m diameter pin piles, and a piling duration of 64 days; 10 x gravity base foundations, each requiring 15 piles for ground strengthening, resulting in 10 x 15 x 4m diameter pin piles and a piling duration of 38 days; and 4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5m diameter pin piles and a piling duration of 12 days. Volume 1, Chapter 3: Project description (APP-010) presents the maximum design parameters for the Morgan Generation Assets, however each of these parameters does not necessarily reflect the realistic worst case scenario that has been applied for each individual topic. It is necessary to consider all design options against the realistic worst case scenario to define the MDS for each impact in turn.	
RR-020.52	The MMO is of the opinion that the number of pins required to secure the OSPs has been underestimated. This is evidenced in the inconsistency between the information contained within Table 3.18 of Volume 2, chapter 3, and Table 3.12 of Volume 1, Chapter 3. The MDS in Table 3.18 is quoted as being four OSPs with four-legged jacket foundations, requiring three piles per leg, leading to a total of 48 piles. However, the MMO identified in Table 3.12 the MDS for OSPs uses a six-legged jacket foundation requiring three piles per leg. The MMO calculates this resulting in a total of 72 piles being required as opposed to the 48 identified. Table 3.18 in Volume 2, Chapter 3 also states the pin pile diameter to be 3.8m whereas Table 3.12 in the project	It should be noted that the Maximum Deign Scenario (MDS) presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) has been selected from the project design envelope. For each of the impacts assessed within the topic chapters, the MDS is identified from the range of potential options for each parameter to identify the scenario with the maximum effect for a particular impact and receptor topic, in this case the piling duration. The approach to assessment (based on CIEEM, 2019; and updates from CIEEM, 2022), including the MDS approach, was summarised during Benthic Ecology, Fish and Shellfish Ecology and Physical Processes Expert Working Group (EWG) meeting 2 (29 November 2022), and EWG meeting 3 (14 March 2023). Meeting minutes are provided in the Technical engagement plan appendices Part 2 (Appendix B; APP-090). Volume 1, Chapter 3: Project description (APP-010) presents the maximum design parameters for the Morgan Generation Assets, however each of these parameters does not necessarily reflect the realistic worst case scenario within the bounds of the project design envelope that has been applied for each individual topic. The MDS for the OSPs for the impact of underwater sound during the construction phase impacting fish and shellfish receptors within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is: 4 x 4-legged jacket OSP foundations (3	The Applicant has clarified that they have two scenarios which cover OSP foundation installation. The first is that four OSPs with four-legged jacket foundations, requiring three piles per leg would be deployed (leading to a total of 48 piles installed), the second scenario is that a single OSP with a six-legged jacket foundation requiring three piles per leg would be installed (resulting in a total of 18 piles installed). The MMO is therefore content that the MDS for the piling of OSPs is appropriate and thanks the Applicant for providing clarification.

	design section (Volume 1, Chapter 3) states that pin piles are 5.5m in diameter	x piles per leg), resulting in 48 x 3.5m diameter pin piles and a piling duration of 12 days. When considering a 6-legged jacket OSP foundation as referenced in Volume 1, Chapter 3: Project description (APP-010), this is based upon a single OSP foundation resulting in 18 piles (1 x jacket foundation, 6 x legs and 3 x pin piles per leg = 18 pin piles in total), whereas the defined MDS is based upon four 4- legged jacket foundations resulting in a greater number of piles to be installed (4 x jacket foundations, each with 4 x legs, and 3 x pin piles per leg = 48 pin piles) and therefore a greater duration of piling. The MDS therefore represents the worst case scenario from the range of options within the bounds of the project design envelope. The piling scenario which resulted in the greatest temporal effect (114 days) was found to be for installing: 64 x 4-legged jacket wind turbine foundations (1 x pile per leg), resulting in 256 x 3.8m diameter pin piles, and a piling duration of 64 days. 10 x gravity base foundations, each requiring 15 piles for ground strengthening, resulting in 150 x 4m diameter pin piles and a piling duration of 38 days. 4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5m diameter pin piles and a piling duration of 12 days. With regards to the pile diameters modelled and assessed, please refer to the Applicant's response to RR-020.51	
RR-020.53	The temporal MDS for the duration of piling also appears to be incorrect. In the project description Volume 1, Chapter 3, the installation duration for a single pin pile is stated to be 6.5 hours per pile under the jacket piling scenario. No installation duration is cited in the project description for pin piles under the gravity base scenario. However, in Table 3.18 of the fish ecology chapter (Volume 2, Chapter 3), the average piling duration is up to 4.5 hours piling per pile for jackets, and up to 4 hours piling per pile for gravity base piles. The MMO has therefore reached the conclusion that the estimates for both the number of hours of piling per day, and the cumulative number of hours/days of	It should be noted that the MDS presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and project description outlined in Volume 1, Chapter 3: Project description (APP-010) are both selected from the overall PDE, but the MDS will differ slightly depending on the impact being assessed, as the impact-specific MDS is derived from a range of engineering scenarios to identify the scenario with the maximum effect for a particular impact and receptor topic, in this case the piling duration under the impact of underwater sound during the construction phase impacting fish and shellfish receptors. Volume 1, Chapter 3: Project description (APP-010) presents the greatest scale for all design parameters, however each of these does not necessarily reflect the MDS when applied to a specific impact. The MDS for fish and shellfish ecology receptors for the impact of underwater sound from piling is based upon the greatest number of piling events (i.e., days of piling) and therefore uses the scenario with the most piles, which is based upon a pile diameter of 3.8m (see below to demonstrate the difference in pile numbers between the two OSP options queried). The installation duration for a single pin pile presented within Volume 1, Chapter 3: Project description (APP-010) represents the maximum duration for a single pin pile of the maximum	The MMO thanks the Applicant for providing clarification.

	piling required to install all piles, are likely to be inaccurate.	diameter considered within the Project Design Envelope (i.e. 5.5 m), however when this is considered in the context of the number of piles associated with the range of engineering scenarios within the PDE, the total piling duration for a 5.5m diameter pile is less than for a scenario with more piles of a smaller diameter (i.e. 3.8 m) which each take less time to install (i.e. 4.5 hours per pile). For example, 256 x 3.8m diameter pin piles resulting from 64 x 4-legged jacket wind turbine foundations with an average of 4.5 hours piling per pin pile equates to piling over a 64-day period. Whereas 181 x 5.5m diameter pin piles resulting from 45 x 4-legged jacket wind turbine foundations with an average of 6.5 hours piling per pin pile equates to piling over a period of 57 days. The temporal MDS for piling under the impact of underwater sound during the construction phase impacting fish and shellfish receptors in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is: 64 x 4-legged jacket wind turbine foundations (1 x pile per leg), resulting in 256 x 3.8m diameter pin piles, and a piling duration of 64 days (based on an average of 4.5 hours of piling per pin pile). 10 x gravity base foundations, each requiring 15 piles for ground strengthening, resulting in 150 x 4m diameter pin piles and a piling duration of 38 days (based on an average of 4 hours of piling per pin pile). 4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5m diameter pin piles and a piling duration of 12 days (based on an average of 4.5 hours of piling per pin pile)	
RR-020.54	The MMO requests that a number of clarifications are required in relation to the UWN modelling presented within Volume 2, Chapter 3. The MMO advises that the clarifications requested in points 4.6.2 to 4.6.5 are presented in a technical addendum to the ES. MDS should clearly be presented in relation to the full extent of piling works and the clarifications required of UWN modelling in relation to herring and cod should also be presented.	Please see responses by the Applicant to points 4.5.3 to 4.5.6, and 4.6.2 to 4.6.5 to address these concerns	The required clarifications of the MDS have now been provided and the MMO thanks the Applicant for this.
RR-020.55	The MMO notes that the thresholds for mortality and potential mortal injury, recoverable injury, and temporary threshold shift (TTS) have	The contour decibel levels presented in Figure 3.8, 3.9, 3.10 and 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are derived from the contours generated for the single strike sound exposure level (SELss) metric to provide a representation of the	The Applicant's response has not resolved this issue.

	been presented correctly as per the pile driving threshold guidelines described by Popper et al. (2014), in Tables 3.23 and 3.25 of Volume 2, Chapter 3. It is therefore unclear why the thresholds described by Popper et al. (2014), have not been presented in Figures 3.10 and 3.11 of Volume 2, Chapter 3 and instead, thresholds of 145 decibels (dB) for TTS, 163 dB for recoverable injury and 166 dB for mortality and potential mortal injury have been modelled for group 3 and 4 fish with high hearing sensitivity. Thresholds of 145 dB, 163 dB and 166 dB do not relate to the hearing capabilities in fish and are markedly lower to those described by Popper et al. (2014) for the same effects. The MMO requests that modelling outputs are amended to present the range of impact from UWN based on the thresholds for Group 3 and 4 fish with high hearing sensitivity for mortality and potential mortal injury (207 cumulative sound exposure level (SELcum)), recoverable injury (203 SELcum), and TTS (186 SELcum) as per the pile driving threshold guidelines described by Popper et al. (2014)	relevant cumulative sound exposure level (SELcum) thresholds. This is based upon the injury ranges (Temporary Threshold Shift; TTS, recoverable injury and mortality) outlined within Table 3.22, 3.23 and 3.24 of Volume 2, Chapter 3: Fish and shellfish ecology (APP021) for Group 3 and 4 fish, drawn directly from Volume 3, Annex 3.1: Underwater sound technical report (APP-028). The SELss contour values are included within Figure 3.8, 3.9, 3.10 and 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for transparency.	In Figures 3.8, 3.9, 3.10 and 3.11 of the fish ecology chapter of the ES, thresholds for mortality and potential mortal injury, recoverable injury, and TTS are presented which were not consistent with the pile driving threshold guidelines described by Popper et al. (2014). The Applicant justifies this by outlining that the contours modelled "*are derived from the contours generated for the single strike sound exposure level (SELss) metric to provide a representation of the relevant cumulative sound exposure level (SELcum) thresholds*". However, this approach is unnecessary and departs from normal practice. Popper et al. (2014) clearly defines evidence-based thresholds for mortality and potential mortal injury, recoverable injury, and TTS effects in fish, based on the SELcum metric so there is no need for the Applicant to infer new thresholds from the SELss metric. Further, it appears that different thresholds for the same effect have been inferred in the different figures; for example, Figure 3.10 displays a TTS contour of 145 dB for a static receptor whereas Figure 3.11 displays noise contours of 142 dB for TTS for a static receptor. The MMO requests that the modelling outputs presented in Figures 3.8, 3.9, 3.10 and 3.11 of the fish ecology chapter be amended. The MMO requests that the Applicant presents the range of impact from UWN based on the thresholds for Group 3 fish with high hearing sensitivity for mortality

			and potential mortal injury (207 cumulative sound exposure level (SELcum)), recoverable injury (203 SELcum), and TTS (186 SELcum) as per the pile driving threshold guidelines described by Popper et al. (2014).
RR-020.56	The MMO raised previous concerns at PEIR stage due to the use of the 160 dB re 1µPa SPLpk (peak sound pressure level) threshold for modelling behavioural responses in herring with no citation for this threshold and no justification or evidence was provided as to what this threshold is based on. UWN monitoring within the ES has been carried out based upon both 135 dB single strike exposure level (SELss) re 1 µPa2.s and 160 dB re 1µPa SPLpk thresholds. At several points throughout the ES (Volume 2, Chapter 3) it is approximated that 135 dB re 1µPa2.s SELss and 160 dB re 1µPa SPLpk are roughly equivalent however, the MMO considers that this is not accurate. The relation between the two metrics is highly contextual and any "conversion" is subject to various uncertainties, although empirical relationships have been proposed for piling noise (e.g., Lippert et al., 2015). Using this later example, 160 dB SPLpk is roughly equivalent to 143 dB SELss. The MMO does not believe that it is entirely appropriate to apply such conversions to noise thresholds as this further removes them their relevant biological context.	The position regarding the use of the 160 dB re 1µPa SPLpk metric is noted by the Applicant. Modelled contours for both SPLpk (160 dB re 1µPa SPLpk) and SELss (135 dB re 1µPa2.s SELss) are presented for herring to support the assessment of behavioural effects in section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The assessment is underpinned by the worst case or maximum ranges of behavioural contours which stem from the highly precautionary 135 dB re 1µPa2.s SELss metric; and the assessment has therefore resulted in the prediction of a moderate adverse effect to herring during the spawning period for the Morgan Generation Assets alone and cumulatively with other projects and plans. The suggestion of applying a 160 dB re 1µPa SPLpk sound level for determining behavioural effects in herring is based upon studies by Doksaeter et al. (2012) and McCauley et al. (2000). Doksaeter et al. (2012) studied the effects of impulsive sonar sources, with behavioural reactions by herring reported to sounds at 168 dB re 1µPa SPLpk. McCauley et al. (2000) studied the effects of impulsive air guns upon a range of species, and reported, behavioural reactions by the clupeid, Perth herring Nematalosa vlaminghi and other species above 156-161 dB re 1µPa2.s mean squared pressure. These studies are referenced within section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The following has been added to the Applicant's errata document: The inclusion of references to 135 dB re 1µPa2.s SELss and 160 dB re 1µPa SPLpk being roughly equivalent are included in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) in error and should be disregarded; this statement is not reflected in the assessment outcomes and specific assessment content, and does not change the conclusions of the assessment. As outlined above within the Applicant's response to this point, the assessment outcomes are based upon the maximum extent of behavioural contours presented, which are derived from the highly precautionary 135 dB re 1µPa2.s SELss	The MMO acknowledges the clarification that the assessment of behavioural effects in herring at their spawning ground in response to piling noise, is based on the maximum range of behavioural effect modelled which uses the appropriately precautionary 135 dB re 1µPa2.s, as per Hawkins et al. (2014). The MMO notes that it is still not entirely clear how the threshold of 160dB re 1µPa SPL peak has been derived. The MMO further notes that the studies which the Applicant has used to determine this threshold are not wholly appropriate for this purpose. For example, the study by Doksæter et al., (2012) is based on the behavioural responses of captive herring exposed to naval sonar transmissions, however it is important to note that no comparison between noise emissions from naval sonar and impulsive piling has been made in this study, and that animals in tanks or large enclosures show very different responses to behavioural stimuli than wild animals (Popper et al., 2014). Further, the Applicant claims that the study by McCauley et al., (2000) examined behavioural reactions by the clupeid Perth herring, *Nematalosa vlaminghi* (Munro 1957) in response to impulsive air guns, but does not acknowledge that 'Perth herring' is a colloquial term for an Australian species of anadromous

		contours, shown in Figure 3.6 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).	(migratory) shad (Smith et al., 2024) which is unlikely to share the same specific reproductive ecology as Atlantic herring (*Clupea harengus*). These studies are therefore not suitable for the purpose of defining a threshold for use in modelling behavioural responses in Atlantic herring at their spawning grounds. The limitations of these studies are also relevant to cod. The MMO thanks the Applicant for recognising that references to 135 dB re 1µPa2.s SELss and 160 dB re 1µPa SPLpk being roughly equivalent are included in error within the ES and should be disregarded. It is not appropriate to make conversions between UWN metrics as relations between metrics is highly contextual and any "conversion" is subject to various uncertainties. Doing so also removes defined noise thresholds from their biological context.
RR-022.57	Table 3.19 in Volume 2, Chapter 3 outlines that where concurrent piling is to take place, the maximum hammer energy of 3000 Kilojoules (kJ) will be used and where single event piling is taking place, the maximum hammer energy will be 4,400 kJ. This is reflected in Figure 3.4 (Volume 2, Chapter 3) where the SELcum for concurrent piling using a hammer energy of 3000 kJ has been modelled relative to the herring spawning grounds around the Isle of Man. Figure 3.6 (Volume 2, Chapter 3) shows the SELss UWN contours for	The Applicant confirms that the maximum hammer energy assessed for concurrent piling within Volume 2, Chapter 3: Fish and shellfish ecology (APP021) is 3,000 kJ, and for single piling is 4,400 kJ. The Applicant acknowledges the risk of adverse effects to herring spawning at the Douglas Bank spawning ground off the east and northeast coasts of the Isle of Man, particularly in the southern part of this ground with regards to piling during the herring spawning period. This is reflected in the precautionary prediction of a potential moderate adverse effect to herring at the Douglas Bank spawning ground during the spawning season concluded in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for the Morgan Generation Assets alone, which is significant in EIA terms. As a result of this predicted potential significant effect to herring, the Applicant has committed to development of an Underwater Sound Management Strategy (UWSMS), an Outline of which is provided with the Application (APP-	The MMO supports the commitment to develop an Underwater Sound Management Strategy (UWSMS) to manage the effects of underwater sound to non-significant levels to ensure no residual significant effect. This commitment alone is not sufficient to remove the need for a seasonal piling restriction during the herring spawning season (September to October, inclusive) which was recommended in MMO-RR-020 in order to protect spawning herring, and their eggs and larvae, from UWN disturbances during the spawning season.

	single point piling using a hammer energy of 4,400 kJ relative to the herring spawning grounds around the Isle of Man. In both figures, herring spawning grounds are indicated by aggregated Northern Ireland Herring Larvae Survey (NINEL) larval density data for the years 2012 to 2021. Both figures show that the UWN contour for 135 dB fully overlaps with the high intensity herring spawning grounds in the southeast of the Isle of Man, and partially overlap with the high intensity herring spawning grounds in the north and northeast of the Isle of Man. As outlined in the PEIR, the 135 dB threshold, as per Hawkins et al. (2014), is considered an appropriate precautionary threshold for modelling behavioural responses in herring at their spawning ground. Based on Figures 3.4 and 3.6 (Volume 2, Chapter 3), project piling works could have potentially significant impacts on herring spawning if piling was to occur during their spawning season (September to October, inclusive), including disrupting the migration and aggregation of adult herring at the spawning grounds and interfering with their ability to spawn when ready. The MMO has therefore deemed it necessary to place a seasonal restriction on piling in order to protect spawning herring and their eggs and larvae during the spawning season	068). The purpose of this strategy is to apply the mitigation hierarchy, from design refinement to the application of additional measures, where required (such as temporal management, or the application of additional measures such as Noise Abatement Systems; NAS, pending forthcoming policy changes), with stakeholder input to manage the effects of underwater sound to non-significant levels to ensure no residual significant effect. The UWSMS is secured as a condition of the deemed marine licence(s) within the draft Development Consent Order (AS-003). The Applicant requires flexibility in the design and construction methods at this stage, due to ongoing design refinement and uncertainties. It would not be considered appropriate to apply a blanket restriction, when the final design parameters and construction programme may not require the implementation of additional mitigation measures. The UWSMS is a consistent approach to a Site Integrity Plan (North Sea)/Piling Strategy (Scotland) and will be developed with stakeholder engagement and will require approval from the MMO prior to any construction activities commencing. This approach is endorsed within NPS EN-3 (paragraph 2.8.135). Through the Evidence Plan Process, at Expert Working Group Meeting 7 on the 23 April 2024, the Joint Nature Conservation Committee (JNCC) confirmed agreement with the principle of the UWSMS and the outline UWSMS being finalised post-consent. At the same meeting, Natural England welcomed the proposed implementation of the UWSMS and the commitment to reduce the risk of injury and disturbance, with positive feedback to the structure of the outline UWSMS. The UWSMS will be based upon the final design and construction programme and is therefore considered a robust and proportionate measure to manage the impacts of underwater sound to ensure effects to herring during their spawning season are not significant, thereby avoiding the need to condition a seasonal restriction under the DCO	Both Figures 3.4 and 3.6 from the fish ecology chapter show that the UWN contours for the 135 dB behavioural response threshold as per Hawkins et al. (2014), fully overlap with the high intensity herring spawning grounds in the southeast of the Isle of Man, and partially overlap with the high intensity herring spawning grounds in the north and northeast of the Isle of Man. Given that no tangible mitigation strategies (using noise abatement technologies or otherwise) for reducing the range of behavioural effects in herring at their spawning ground from UWN, appear to have been outlined in detail at this point in the process, the MMO considers that it is not appropriate to remove the requested restriction. Given the availability of effective alternatives to unmitigated piling – i.e. noise abatement measures to reduce noise at source - unmitigated pile driving cannot be justified on the basis that there are no realistic alternatives. Noise abatement measures would reduce the range of potential impact from UWN on sensitive species and habitats, an issue which is especially pressing given the wider context of the current expansion of offshore wind developments in the Irish Sea. To ensure adequate preparations are made and potential delays avoided, The MMO states that it is in the Applicant's interest to plan for and to incorporate noise

			abatement measures at the earliest opportunity. The MMO is content for the UWSMS to be finalised post-consent, however, removing the recommended restriction on piling during the herring spawning season would be premature as the Applicant has yet to present any evidence of the specific measures (including the use of Noise Abatement Systems (NAS)) which will be used to reduce UWN emissions to within acceptable levels relative to the herring spawning ground. Until such evidence is presented, **he MMO's strongly believes and requests that a seasonal piling restriction is necessary in order to protect spawning herring, and their eggs and larvae, during the spawning season (September to October, inclusive) and that the restriction remains on the face of the DML.** The implementation of adequate noise abatement strategies may remove the need for seasonal piling restrictions, however the Applicant must demonstrate that the range of impact from UWN in relation to spawning herring is adequately reduced. In relation to the Site Integrity Plan (SIP) (North Sea) the MMO would highlight that this process was set out for a specific reason for in-combination impacts only, any concerns to the project alone were discussed and agreed/concluded at the consenting stage. At this stage the impacts on fish for Morgan OWF is for the project

			alone and therefore it is not the same and the need for a restriction still stands without the evidence requested. The Principle of the UWSMS was agreed during the Evidence Plan Process, however this did not include all the required information and the MMO requires further information to be confident that a conclusion of no impact can be agreed without specific details. The MMO welcomes further discussion on the seasonal restriction wording to include flexibility within the condition, including that of the UWSMS.
RR-022.58	Following the review of the PEIR, the MMO requested that a detailed assessment for the impacts of underwater noise from piling using the most recent evidence/data for Atlantic cod, including the potential impacts to eggs and larvae, should be undertaken. Further modelling was requested for the SPLpk of 207 dB for eggs and larvae following a worst-case scenario. This recommendation was in line with MMO's previous recommendations for projects of a similar nature in the Irish Sea, for example, the Walney Extension Offshore Wind Farm (OWF) had a piling restriction during the cod spawning season to ensure any significant impacts to cod were mitigated. This does not appear to have been modelled specifically, however modelling of UWN emissions in relation to high and low intensity cod spawning grounds has been presented in Figures 3.5, 3.11 and 3.14 (Volume 2, Chapter 3).	The Applicant has responded to this comment within Annex 3.1_Morgan Gen_Response to RR-020_MMO_FSF_4.6.5	See related comments within section 1.1. of this document.

	Clarification is required on the threshold modelled in Figure 3.11, and the hammer energy modelled in Figure 3.14, which is lower than the stated maximum. Figure 3.5 presents SPLpk noise contours for every 5 dB increment for a 4,400 kJ hammer energy at the north modelled location, which is in the middle of the high intensity cod spawning ground, however some clarification of this figure is also needed regarding the diameter of the pile used in the modelling (as per comment 4.6.4). The project falls entirely within the high intensity cod spawning grounds. Cod is a hearing specialist (has a swim bladder involved in hearing) and is highly vulnerable to noise disturbances (Popper et al., 2014), therefore the impact ranges for mortality and potential mortal injury, recoverable injury, TTS, startle response, and possible moderate to strong avoidance are likely to fall entirely or mostly within the spawning grounds. Clarifications requested in points 4.5.3 and 4.6.1 are required so that impacts to cod can be appropriately assessed. Pending clarifications on the UWN modelling for cod, the MMO considers that a seasonal piling restriction is likely to be necessary to protect gathering and spawning adult cod, and their eggs and larvae, will be necessary during the spawning season (January to April inclusive)		
RR-022.59	Due to the uncertainties in the UWN modelling and assessments	Please see response to RR-020.58 within Annex 3.1_Morgan Gen_Response to RR-020_MMO_FSF_4.6.5. Further as outlined	See related comments within section 1.1. of this document.

	presented in Volume 2, Chapter of the ES, the MMO is precautionarily requesting that seasonal piling restrictions be implemented to prevent significant disruption to spawning cod and herring, and their eggs and larvae, during their sensitive spawning seasons (please see points 4.6.4 and 4.6.5). The use of noise abatement technologies during piling operations at the Morgan Array could reduce the range of impact from UWN sufficiently that UWN emissions from piling will not overlap with the spawning grounds of cod and herring. In this way, and providing that suitably accurate and detailed modelling is presented, it may be possible to refine the MMO's request of a temporal piling restriction. Given the availability of effective alternatives to unmitigated piling and the range of noise abatement options, unmitigated pile driving cannot be justified on the basis that there are no realistic alternatives. It should also be noted that, given the expansion of OWF in the Irish Sea through the development of the Morgan, Mona, and Morecambe OWFs in the next few years, noise abatement should be considered in order to minimise the cumulative impact of UWN emissions from piling through the region.	within Annex 3.1_Morgan Gen_Response to RR020_MMO_FSF_4.6.5 and in the outline UWSMS (APP-068), the application of sound abatement (noise abatement systems (NAS)) is one of a number of potential measures which will be considered and investigated as part of the UWSMS to manage the potential cumulative effects of underwater sound from piling on spawning cod to non-significant levels. Underwater sound modelling presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028), and the results of which presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) include standard mitigation measures applied to piling only (i.e. soft-starts, ramp-ups) and assessed the "worst case scenario" under the design envelope/maximum design scenario approach. Further investigation will be undertaken through development of the UWSMS post-consent to fully assess and determine additional measures, if required, such as in-line mitigation systems or external NAS (pending forthcoming policy changes), following the application of the mitigation hierarchy. The UWSMS will be developed with stakeholder input, and the final UWSMS will be subject to approval by the MMO prior to the commencement of piling.	
RR-022.60	The MMO notes that the modelling presented in Figures 3.4 and 3.6 (Volume 2, Chapter 3) present unmitigated piling scenarios. Given the availability of effective alternatives to unmitigated piling, such as noise	As outlined in the Outline Under Water Sound Management Strategy (APP068)), NAS is one of a number of measures which will be considered as part of the UWSMS to manage the cumulative effects of underwater sound from piling on spawning herring and cod (and other relevant species) to non-significant levels. Underwater sound modelling presented in Volume 3, Annex 3.1: Underwater sound	See related comments within section 1.1. of this document.

	abatement measures to reduce noise at source, unmitigated pile driving cannot be justified on the basis that there are no realistic alternatives. Noise abatement measures would reduce the range of potential impact from UWN on sensitive species and habitats, an issue which is especially pressing given the wider context of the current expansion of offshore wind developments in the Irish Sea. To ensure adequate preparations are made and potential delays avoided, the MMO recommends planning for noise abatement measures at the earliest opportunity and to incorporate such measures. The implementation of adequate noise abatement strategies may also remove the need for seasonal piling restrictions, providing that the range of impact from UWN in relation to spawning cod and herring is adequately reduced	technical report (APP-028), and the results of which presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) include standard mitigation measures applied to piling only (i.e. soft-starts, ramp-ups) and assessed the realistic "worst case scenario" under the design envelope/maximum design scenario approach. Further investigation will be undertaken through development of the UWSMS post-consent to fully assess and determine additional measures, if required, such as in-line mitigation systems or external NAS, following forthcoming policy and the application of the mitigation hierarchy. With regards to seasonal restrictions, please refer to responses to RR-020 for items 4.6.4 (RR-020.57), 4.6.5 (RR-020.58) and 4.6.6 (RR-020.59) which outline the Applicant's position.	
RR-022.61	The MDS used in the cumulative assessment for UWN impacts to fish is the same as that presented in Table 3.18 (Volume 2, Chapter 3). It should be noted that the clarifications outlined in 4.6.2 to 4.6.3 will also apply to the cumulative scenarios. The MMO has also noted a number of minor issues within the cumulative effects assessment methodology (Volume 2, Chapter 3, Section 3.11) section which are required to be clarified before the assessment can be accepted. More details are found in points 4.6.9 and 4.6.10.	The Applicant notes this response and has provided further clarification to the points below	The MMO notes the applicant's response and has provided a response below.

RR-022.62	Scenarios 1 and 3 of the cumulative effects assessment (Volume 2, Chapter 3, Section 3.11) appear to be the same and it is not clear how these scenarios are different. Both scenarios take the Morgan Generation Assets together with the Morgan and Morecambe OWF Transmission Assets.	Scenario 1 of the CEA is an assessment of cumulative effects of the Morgan Generation Assets combined with the Morgan and Morecambe Offshore Wind Farms: Transmission Assets	It has been clarified that all references to the Morgan Generation Assets in the CEA UWN assessment are based upon installation of 454 pin piles with a maximum hammer energy of up to 4,400 kJ. The MMO is content that the Applicant's response appropriately addresses MMO concerns.
RR-022.63	Repeated reference is made to the installation of monopiles in the cumulative assessment for UWN effects on fish. However, the option of using monopiles as a base for OSPs and turbines has been removed from the Morgan OWF design envelope, the Applicant has previously indicated that the design envelope for the Morgan and Morecambe Transmission Assets has been updated to include no elements which require piling. It appears that an incorrect maximum hammer energy has also been stated (5,500 kJ rather than the updated maximum hammer energy of 4,400 kJ)	Throughout the cumulative effects assessment within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), references to monopiles relate to the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, Morecambe Offshore Windfarm: Generation Assets and Awel y Môr Offshore Wind Farm, based upon information available within the public domain at the time of Application submission. Information for Morgan and Morecambe Offshore Wind Farms: Transmission Assets and Morecambe Offshore Windfarm: Generation Assets is based upon the design information contained within their respective Preliminary Environmental Information Reports (Morecambe Offshore Windfarm Ltd., 2023; Morgan and Morecambe (Offshore Wind) Transmission Assets; 2023), and information for Awel y Môr Offshore Wind Farm was drawn from the Environmental Statement (RWE, 2023). At the time of writing, piling of monopiles was included within the Morgan and Morecambe Offshore Wind Farms: Transmission Assets Preliminary Environmental Information Report. All references to the Morgan Generation Assets in the CEA underwater sound assessment within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are based upon installation of 454 x pin piles with a maximum hammer energy of up to 4,400 kJ, as outlined within Table 3.35 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).	It has been clarified that all references to the Morgan Generation Assets in the CEA UWN assessment are based upon installation of 454 pin piles with a maximum hammer energy of up to 4,400 kJ. The MMO is content that the Applicant's response appropriately addresses MMO concerns.
RR-022.64	It is clear from Table 3.31 (Volume 2, Chapter 3) that the years 2026 to 2029 will be a period of significant development in the Irish Sea with no less than four offshore wind projects being installed. Serious concerns remain as to the impact on fish receptors from cumulative UWN arising from the various OWF projects described in Sections 3.10 and 3.11 of	As each project has undertaken underwater sound modelling independently, utilising different parameters (which are not fully elucidated within each Application), it is not possible to replicate this modelling within a single figure, and therefore requires qualitative assessment when interpreting the potential for enhanced areas of ensonification. As such, the Applicant has undertaken a detailed review of the modelling undertaken for each relevant project alone (i.e. those which may be constructing at the same time as the Morgan Generation Assets) to determine the potential for increased areas of ensonification overlapping defined spawning habitat, particularly for herring and cod.	The MMO is generally content that the Applicant's CEA is sufficiently precautionarily and supports their conclusion of a predicted moderate adverse effect for sound-sensitive species, cod and herring, which is significant in EIA terms and requiring mitigation. The MMO therefore determines that the following points within the Applicant's

	the fish ecology chapter (Volume 2, Chapter 3). The MMO is of the opinion that mitigation measures and careful scheduling are necessary to reduce the impacts to fish which have spawning grounds in the region. The MMO recommends that the cumulative impact range contours are presented, for all the projects discussed in the cumulative impact assessment, as a figure to help better visualise any potential cumulative impacts between OWF projects.	This has been qualitatively interpreted to reach a precautionary conclusion. The Applicant considers that this has been sufficiently and precautionarily assessed within the CEA and for sound-sensitive species, cod and herring, has resulted in a predicted moderate adverse effect, which is significant in EIA terms. Based upon this predicted effect, the Applicant has committed to development of an Underwater Sound Management Strategy (secured as a condition of the deemed marine licence(s) within the Draft Development Consent Order (AS003), an outline of which is provided with the Application (APP-068). The purpose of this strategy is to apply the mitigation hierarchy, from design refinement to the application of additional measures, where required and in line with forthcoming policy changes, with relevant stakeholder input to manage the effects of underwater sound to non-significant levels.	SoCG can be amended from 'ongoing point of discussion' to 'agreed': MMO.FSF.9 MMO.FSF.10 MM.FSF.11
RR-022.65	The UWN modelling presented includes contours for each 5 dB increment. When these graduating contours are overlaid onto the spawning and nursery grounds maps from Coull et al. (1998) and Ellis et al. (2012), the figures become overloaded with information which affects ease of interpretation. The MMO recommend that these figures should be kept as simple as possible. The spawning and nursery grounds maps from Coull et al. (1998) and Ellis et al. (2012) need to be included on UWN modelling figures. However, the UWN contours which are of consequence to the assessment should be the only ones presented, namely: the thresholds for Group 3 and 4 fish with high hearing sensitivity for mortality and potential mortal injury (207 SELcum); recoverable injury (203 SELcum); and, TTS (186 SELcum) as per the pile driving threshold guidelines described by Popper et al. (2014). For the purpose	The Applicant has responded to this comment within Annex 3.3 _Morgan Gen_Response to RR-020_MMO_FSF_4.6.12.	See related comments within section 1.3. of this document.

	of modelling behavioural responses in herring and other hearing sensitive fish at their spawning ground, a threshold of 135dB (SELss), based on research by Hawkins et al. (2014), is recommended by MMO. UWN contours for this threshold should also be presented on the relevant figures as appropriate. Presenting fewer, more relevant, UWN contours will make the modelling presented much clearer.		
RR-022.66	The MMO is content that the seabed sediments within the Morgan Array Area are generally not high value as herring spawning habitat based on the classification of habitat suitability for herring presented in Figure 2 (Volume 2, Chapter 3). Both site specific and supporting particle size analysis (PSA) data characterise sediments as being 'unsuitable' as herring spawning habitat. However, Figure 3.2 (Volume 2, Chapter 3) shows that outside and to the north of the Morgan boundary, there is an area where broadscale seabed sediment data classifies the habitat as 'preferred' Sandy Gravel. Although there is no PSA data for this area to ground-truth this characterisation, these sediments are overlapped by both high and low intensity spawning grounds for herring, according to Coull et al. (1998). Although herring may not be actively spawning within the Morgan Array area, there will be herring spawning taking place across the active spawning ground in the vicinity of the project.	The Applicant notes this response. The proximity to herring spawning grounds has been considered in the impact assessment for the project alone and cumulatively with other projects and plans in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for all relevant impacts. The assessment considers the potential for impacts to occur within the fish and shellfish ecology study area, which encompasses areas of suitable spawning habitat outside of the direct footprint of project infrastructure and the Morgan Generation Assets Array Area, and outside of the mapped spawning grounds. It should be noted however that broadscale habitat data, particularly within such a dynamic area which has been found to reflect a mosaic of habitats rather than large extents of a specific habitat (see habitat mapping for the sitespecific surveys in Volume 4, Annex 2.1: Benthic subtidal ecology technical report; APP-050) should be interpreted with caution, due to the high degree of interpolation applied.	The MMO is content with the Applicant's conclusion that seabed sediments within the Morgan Array area are generally not high-value as herring spawning habitat, and that the area to the north of the Morgan boundary has been appropriately recognised by the Applicant as a herring spawning ground. The MMO does not consider that further action is necessary.

RR-022.67	The broadscale seabed sediment data presented in Figure 3.3 (Volume 2, Chapter3) shows that the Morgan Array area overlies a matrix of preferred marginal, as well as some unsuitable, sediment types for sandeel. The MMO highlighted within the PEIR that this characterisation is supported by sitespecific PSA data. Given there is mixed potential for sandeel to be inhabiting sediments within the array area, the MMO recommends that the habitat suitability assessment is strengthened, either by presenting a 'heat' map following the MarineSpace method for sandeel or by incorporating the additional data layers used in the MarineSpace method into the current sandeel habitat suitability assessment.	The Applicant notes this position, however disagrees that mapping of further data layers will strengthen or increase the resolution of the habitat suitability assessment presented within Figure 3.2 and Figure 3.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), given the "patchiness" of the substrate noted across the Morgan Generation Assets during site-specific surveys undertaken in 2021 and 2022 (please refer to Volume 4, Annex 2.1: Benthic subtidal ecology technical report for a full description of seabed habitats encountered; (APP-050)). This is supported by the variation evident in broadscale seabed substrate mapping, although, given the broadscale nature (and necessary high degree of interpolation) this is less reflective of the fine scale variability in substrate composition. The Applicant outlined the proposed approach to sandeel substrate suitability assessment as a post-meeting note in the meeting minutes from Benthic Ecology, Fish and Shellfish Ecology and Physical Processes Expert Wo king Group (EWG) 04 (11 July 2023; E3: Consultation report; (APP-088)): Presentation of site-specific survey particle size analysis (PSA) data; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis et al. (2012). Presentation of site-specific survey PSA data alongside regional PSA data extracted from the Cefas OneBenthic tool; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis et al. (2012). These are presented within section 1.7 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051). Furthermore, item 18 of the Agreement Log for the Benthic Ecology, Fish and Shellfish Ecology and Physical Processes EWG (E3 Consultation Report (APP088)) sought agreement from stakeholders on: The characterisation of sandeel potential is sufficient to inform the EIA with the caveat that PSA data is presented for the Environmental Statement to allow for data cross-checking by stakeholders and that additional PSA sample data is extracted from the Cefas OneBenthic	The MMO agrees that the characterisation of sandeel potential habitat is sufficient to inform the EIA. Effects of temporary habitat loss and physical disturbance to sandeel habitat may occur during construction of the wind farm, although this will likely be limited to the area where suitable sediments are located. Although the evidence presented thus far shows that the Morgan Array area overlies a matrix of preferred, marginal, as well as some unsuitable sediment types for sandeel, given the wider availability of seabed substrates that are suitable as sandeel habitat outside the array area, the MMO is content that the magnitude of temporary habitat loss and physical disturbance during construction of the wind farm is unlikely to result in significant adverse effects on sandeels in the area. The MMO is of the opinion that the evidence presented is sufficient to amend points MMO.FSF.2, FSF.6 and MMO.FSF.7 of the Applicant's SoCG from 'ongoing point of discussion' to 'agreed'. The Applicant's broad approach to characterisation of the baseline environment for fish and shellfish is appropriate.

		tool for the project region to provide a wider context regarding substrate suitability. Feedback received from stakeholders following EWG 04 (11 July 2023; E3: Consultation report; (APP-088)) stated: Natural England: "Natural England broadly agrees with the approach for characterisation of potential sandeel habitation and spawning." (Agreed) Cefas: "Applied to both herring and sandeel substrate suitability: using additional sources to support the substrate classification such as Cefas' OneBenthic tool to extract more PSA data from the region (where available) to provide characterisation beyond the surveyed areas." (Under discussion). Site-specific survey PSA data is presented within Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050). As the Cefas recommendations to incorporate additional regional PSA data from the OneBenthic tool has been actioned within the figures and interpretative text presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), no further action is proposed	
RR-022.68	The MMO requested at the PEIR stage that the habitat suitability assessment should be adapted to include 'heat' maps of potential herring spawning habitat and potential sandeel habitat following methods described by MarineSpace (2013a) and (2013b), and updated versions of these methods are now available as per Reach et al. (2023) and Kyle-Henney et al. (2023). MMO notes that an adequate 'heat' map for herring using a Kernel density map of aggregated NINEL herring larval data, has been provided. For sandeel, the MMO recommends producing two layered maps to accompany the habitat suitability assessment, the first of which presents sediment classes	The Applicant notes the feedback regarding herring spawning habitat heat mapping with thanks. The Applicant thanks the MMO for raising the updated methods for herring and sandeel habitat suitability assessment; these will be referenced for future studies. The Applicant outlined the proposed approach to sandeel substrate suitability assessment as a post-meeting note in the meeting minutes from Benthic Ecology, Fish and Shellfish Ecology and Physical Processes Expert Working Group 04 (11 July 2023; Consultation report (APP-088)); no further feedback was received regarding this approach: Presentation of site-specific survey particle size analysis (PSA) data; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis et al. (2012). Presentation of site-specific survey PSA data alongside regional PSA data extracted from the Cefas OneBenthic tool; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points	See MMO response to RR-020.67.

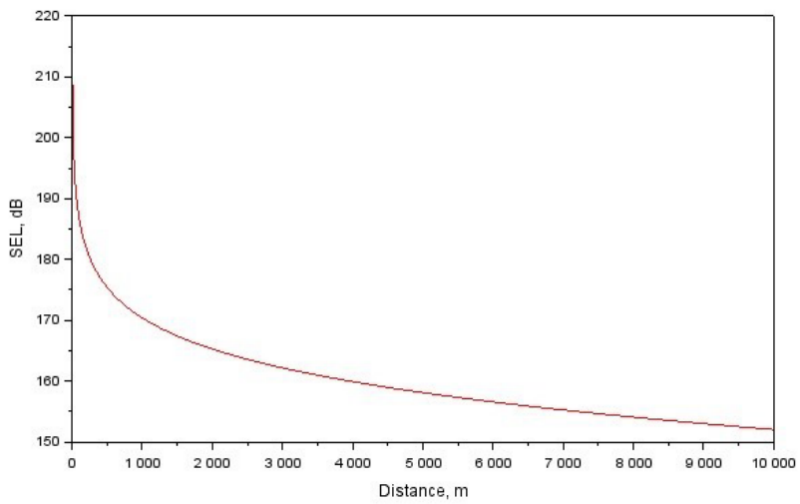
	for sandeel across the region with site-specific and wider regional PSA data overlaid to clearly present the availability and suitability of habitat for sandeel in the vicinity of the array. The second of these layered maps should present the spawning and nursery grounds for sandeel as per Coull et al. (1998) and sandeel presence data derived from the OneBenthic Portal to provide an indication of sandeel presence in the region.	will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis et al. (2012). These are presented within section 1.7 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051). These are broadly aligned with the information requested by the MMO and provide the same resolution from a characterisation perspective of the two figures requested, therefore no further action is proposed. Furthermore, item 18 of the Agreement Log for the Benthic Ecology, Fish and Shellfish Ecology and Physical Processes EWG (E3 Consultation Report (APP088)) sought agreement from stakeholders on: The characterisation of sandeel potential is sufficient to inform the EIA with the caveat that PSA data is presented for the Environmental Statement to allow for data cross-checking by stakeholders and that additional PSA sample data is extracted from the Cefas OneBenthic tool for the project region to provide a wider context regarding substrate suitability. Feedback received from stakeholders following EWG 04 (11 July 2023; Consultation report (APP-088) stated: Natural England: "Natural England broadly agrees with the approach for characterisation of potential sandeel habitation and spawning." (Agreed) Cefas: "Applied to both herring and sandeel substrate suitability: using additional sources to support the substrate classification such as Cefas' OneBenthic tool to extract more PSA data from the region (where available) to provide characterisation beyond the surveyed areas." (Under discussion). Site-specific survey PSA data is presented within Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050). As the Cefas recommendation to incorporate additional regional PSA data from the OneBenthic tool has been actioned within the figures and interpretative text presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), no further action is proposed	
RR-022.69	The MMO notes that the table of key species (Table 3.11, Volume 2, Chapter 3) indicates there are no herring spawning grounds overlapping the boundary of the array area, however the aggregated herring larvae density presented in Figure 3.4 (Volume 2, Chapter 3) clearly	The baseline characterisation presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) provides a summary of the detailed characterisation undertaken within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), therefore presents key considerations only. As such, Table 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP021) specifically considers those spawning and nursery grounds (derived from Coull et al., 1998 and Ellis et al., 2012) which directly overlap the Morgan Generation Assets,	The MMO is content that no further action is necessary. The MMO recognises that the Applicant defined an appropriately large study area and provided a full characterisation of fish ecology receptors in the fish and shellfish ecology technical report. Nonetheless, it

	indicates an active herring spawning ground located within 10km of the boundary. The MMO raised at the PEIR stage that this table (3.11) presents a narrow reflection of spawning and nursing activity in the area surrounding the array and given the mobility of fish. The MMO considers that it is not an appropriate spatial scale against which to screen the presence of spawning and nursery grounds. The MMO recommends the table of key species (Table 3.11, Volume 2, Chapter 3) should be amended to reflect the presence of spawning and nursery grounds within the study area (i.e., the wider Irish Sea region), rather than only presenting those which overlap the project boundary.	however full characterisation presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) considers the full fish and shellfish assemblage within the fish and shellfish ecology study area. This has been fully considered within the assessment (Volume 2, Chapter 3: Fish and shellfish ecology; APP-021) for those species carried forwards as Important Ecological Features, and for herring, has resulted in a predicted potential moderate adverse effect to herring spawning at the Douglas Bank spawning ground within the reported spawning period due to the impact of underwater sound from piling, both for the project alone and cumulatively with other projects and plans. The only mapped fish spawning ground within close proximity to the fish and shellfish ecology study area not included within Table 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is that for hake *Merluccius merluccius*. Hake is however noted within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) as a species recorded during the International Bottom Trawl Survey (IBTS; paragraph 1.4.1.10) and is further discussed in paragraphs 1.4.1.16 and 1.4.1.17. The spawning period for hake is also considered within Table 1.4 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051). Further, the status of hake as a Species of Principal Importance in England and Wales is referenced in paragraph 1.12.3.1. The above results in ensuring that hake is included as an Important Ecological Feature under “Other demersal species” within Table 1.10 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), and Table 3.14 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). This demonstrates that the baseline characterisation is not centred just on the presence of spawning and nursery grounds which directly overlap the Morgan Generation Assets, and that Table 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) forms just a small part of the characterisation undertaken. No further action is proposed.	would be helpful in, in future applications, tables similar to Table 3.11 included all key sensitive fish receptors within the vicinity of the project works which were being carried forwards for further assessment rather than those which immediately overlap the project array. This will provide a neat presentation for reviewers which makes clear the key sensitive fish receptors which the Applicant has highlighted as being of particular interest within their application.
RR-022.70	The impacts scoped into the assessment (Table 3.7 Volume 2, Chapter 3) (Annex 7.1) are consistent with those scoped in at PEIR stage. The MMO has previously recommended that long-term alterations should be considered as permanent, as the worst-case scenario is that scour protection and	Within the decommissioning assessment for the impact of long term habitat loss for fish and shellfish ecology receptors within section 3.9.5 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), paragraph 3.9.5.31 states that long term habitat loss is considered to represent permanent habitat loss, following a precautionary approach. This is reflected in defining the magnitude of impact for long term habitat loss in the decommissioning phase in paragraph 3.9.5.33, which notes the permanent nature of the impact. No action is proposed by the Applicant.	The MMO’s original comment related to the mischaracterisation of impacts to fish from permanent habitat loss as ‘long term’ habitat loss which implies temporary loss or change to habitats over an undefined but ‘long-term’ period of time. Where scour protection, turbine foundations or other project infrastructure

	foundation infrastructure is not removed following project decommissioning. This would represent a permanent alteration to the habitat during and beyond the project's lifetime. The MMO recommends that this is revised		is not removed following the end of the project's lifetime, this would represent a permanent alteration to the habitat. The Applicant's response is that "*long term habitat loss is considered to represent permanent habitat loss*", in which case the MMO requests that the term permanent habitat loss is more representative of what the Applicant means and is assessing.
RR-022.71	The MMO is content with impacts which have been scoped out of further assessment detailed in Table 3.8 (Volume 2, Chapter 3).	The Applicant notes and welcomes this response.	No further action is required
RR-020.72	The MMO is of the opinion that the evidence and data sources used to inform the desk-based assessment are generally appropriate for this purpose and are consistent with those used to support other applications of a similar scale and nature.	The Applicant notes and welcomes this response.	No further action is required
	Shellfish Ecology		
RR-020.73	The MMO has no comments to make in relation to receptors which have been scoped out and not considered within the ES with regards to shellfish ecology as detailed in Table 3.8. Volume 2, Chapter 3.	The Applicant notes and welcomes this response	No further action is required
RR-020.74	The MMO notes that no mitigation measures are included for shellfish. The MMO considers this to be appropriate as no impacts were identified as causing a significant negative impact on shellfish.	The Applicant notes and welcomes this response	No further action is required
RR-020.75	The MMO considers that there are no outstanding concerns in relation to this application in relation to shellfish.	The Applicant notes and welcomes this response	No further action is required

	Underwater Noise		
RR-020.76	The MMO considers that the relevant potential impacts of underwater noise on marine receptors have been scoped in. Comments on Volume 3, Annex 3.1 Underwater sound technical report (document reference F3.3.1)	The Applicant notes and welcomes this response.	No further action is required
RR-020.77	The report includes a detailed presentation of the acoustical properties of the sediments that were allegedly used for the calibration of the propagation modelling, with the depth variability according to various geological layers (Table 1.23). The MMO advises that the Weston model used for calculating the propagation loss in Table 1.22 does not explicitly include a variability with depth of the sediment acoustic properties, but instead condenses these into a single parameter, namely the seabed bottom loss (the parameter α in Table 1.22 formulae, which is distinct from the attenuation coefficients in Table 1.23). The MMO considers that it is not clear how this parameter α was calculated or estimate based on the properties of Table 1.23 and request further clarification on this matter.	The attenuation term (alpha, hereafter referred to as $\alpha\mathrm{dB}$) in the Weston model is defined in units of dB per radian, and is derived from the acoustical properties of the top layer of the seabed. Therefore the water and sediment sound speed, densities and attenuation coefficient (α_S in dB per wavelength) are inputs to the Weston model in order to determine $\alpha\mathrm{dB}$ using standard acoustic theory (e.g. Ainslie 2010; Harrison & Nielsen 2007; Lurton 2010). The attenuation term $\alpha\mathrm{dB}$ can be calculated as: $$\alpha_{dB} = \frac{\alpha_s}{\pi}\frac{\rho_s c_w^2}{\rho_w c_s^2 sin^3\theta_c}$$ Where ρ_s and ρ_w are the densities of the sediment and water respectively, c_s and c_w are the sound speeds in the sediment and water respectively, and θ_c is the critical angle. Additional layers are used in the source level determination modelling. This source modelling used a hybrid Finite Element (FE) model and Parabolic Equation (PE) modelling approach, the PE model being used for the backcalculation of equivalent sound pressure levels and pressure time series at a (virtual) distance of 1m from the pile centre. The FE model uses the sound speeds and densities from Table 1.23, whilst the PE modelling also uses the attenuation coefficients. Full details are provided in Appendix A of Volume 3, Annex 3.1: Underwater Sound Technical Report (APP-028). The water and sediment sound speed, densities and attenuation coefficients in Table 1.23 are also used in the calibration of the site specific Weston Energy Flux sound propagation model. In order to carry out this calibration, the model results were compared against the results from the Parabolic Equation solver (Collins, 1991; Jensen,	The MMO thanks the applicant for providing clarification on this matter and has no further comments to add at this time.

		1994) and the Normal Mode solver (Jensen, 1994; Pedersen and Keane, 2016).	
RR-020.78	There is mention of the calibration of the Weston model (paragraph 1.8.2.2 of Volume 3, Annex 3.1). The adjustments and calibration represent an in-depth level of technical detail which are specific to the chosen propagation model. However, what is important is the end result of this process, namely the actual predictions of the propagation loss model, which serve both as a basis for modelling the various noise levels and impact ranges and to compare against data from future noise monitoring. The MMO requests that these are included in the form of plots of received levels versus range, for chosen transects. Alternatively, map plots of the SELss would also display the spatial variability of the noise levels.	A figure showing the received SEL against the distance from the source has been provided in response to comment 4.9.4 below. Map plots showing the spatial variation of the SELSS are provided within the marine ecology chapters (Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and Volume 2, Chapter 4: Marine Mammals (APP-022)).	The MMO thanks the applicant for providing clarification on this matter and has no further comments to add at this time.
RR-020.79	As previously requested at PEIR stage, the MMO requests that a received level versus range curve/plot for a given transect be provided in Volume 3, Annex 3.1.	Please see below Figure 1 showing the received SEL against distance from the source.	The MMO thanks the applicant for providing clarification on this matter and has no further comments to add at this time.

		 Figure 1: Plot showing the relationship between distance and received SEL for the north transect, for the maximum piling energy of 4,400 kJ.	
RR-020.80	The MMO agrees with the conclusions from paragraph 1.7.4.12, in relation to concurrent piling, in that minimum separation between two piling sources will likely result in higher noise levels around these piling locations, while maximising the source separation will reduce the overlap of the impacted areas around these two locations. However, the relevant measure of the potential impacts is the total impacted area around both piling locations, and the interplay of these two antagonistic effects is complex. This makes it difficult to establish a priori which source separation distance maximises this total impacted area.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.	See MMO response to RR-020.84 below.

	More comments are provided in 4.9.6 – 4.9.8.		
RR-020.81	The MMO considers that as relevant noise levels are relatively low and consequently the impacted areas are large, the area overlap can be the dominant factor. Therefore, maximum separation often results in the largest total impacted area. In the case of the injury effects, it is less clear by how much the effect range will increase when having the two sources in close proximity, and whether the corresponding injury area is greater than the sum of the individual injury areas when assuming a large source separation.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9	See MMO response to RR-020.84 below.
RR-020.82	The MMO compared the SELcum results for marine mammals and the concurrent pin pile installation at 3,000 kJ (Table 1.41) against corresponding results for the single pin pile installation (Table 1.35). The MMO observes that the area for the concurrent piles scenario is slightly less than twice the area for a single pile scenario. This suggests a scenario with maximum separation between sources may result in a larger permanent threshold shift (PTS) total area. The MMO is therefore of the opinion that the worst case could potentially be a one of the 'intermediate' separation of sources when there could be a significant summation of the noise levels from the two sources but without a large overlap of their effected areas.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.	See MMO response to RR-020.84 below.

RR-020.83	The point made in 4.9.7 is evidenced to a greater extent in the case of SELcum Temporary Threshold Shift (TTS) impacts. The low frequency cetaceans (LF) predicted impact range for the concurrent piling scenario (Table 1.41) is only slightly larger than the corresponding range for a single pile (Table 1.35) (40.1km versus 37.7km, or about 5% increase) which means that the total TTS impact area from two piles at maximum separation will likely exceed the TTS area of the concurrent scenario that was assumed to be the worst case.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.	See MMO response to RR-020.84 below.
RR-020.84	The MMO cautions against the assumption that the limited selection of concurrent scenarios (two scenarios representing minimum and maximum piling location separation) considered within the Underwater Sound Technical Report (Volume 3, annex 3.1) would capture the worst-case scenario in a defined manner. Additionally, the MMO considers that if only two scenarios are considered, then it is recommended that a full investigation of all potential impacts is conducted and then the worst case is decided and reported accordingly**.**	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.	The MMO has reviewed the following document: *Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9* regarding the assessment of simultaneous piling, and the MMO thanks the Applicant for this information. This additional evidence is welcomed for transparency and completeness, as it was not clear in the original underwater noise assessment why various assumptions and choices had been made. The MMO advises that it would be helpful for future reporting if such information is included within the main underwater noise assessment.
RR-020.85	**Offshore Ornithology** The MMO defers to NE as SNCB, and supports any comments raised in relation to the Ornithology. The MMO will continue to be part of the discussions relating to securing any mitigation and monitoring or other conditions required within the DMLs.	The response is noted by the Applicant.	Nothing to add at this deadline.

RR-020.86	**Commercial Fisheries** It is likely that there will be an impact to fishing operations and to other legitimate users of the sea, as temporary exclusion zones will be in force around the worksite for the duration of any proposed works. This could result in temporary restrictions of access to fishing grounds or navigation routes. The MMO notes the inclusion of such safety zones within ES Volume 2: Chapter 6: Commercial Fisheries.	Potential impacts on commercial fisheries receptors due to the use of/presence of safety zones/temporary exclusion zones have been assessed within Volume 2, Chapter 6: Commercial fisheries (APP-024). The application and temporary use of safety zones/exclusion zones will be in accordance with the Safety zone statement (APP-106) that is secured through the Outline fisheries liaison and co-existence plan (APP-065)	The MMO welcomes this clarification and has nothing to add at this deadline. The MMO will maintain a watching brief on any issues in relation to the Outline fisheries liaison and co-existence plan or commercial fisheries.
RR-020.87	The MMO defers to the National Federation of Fishermen's Organisations along with standalone representatives on matters of commercial fisheries. The MMO will continue to be part of the discussions relating to securing any mitigation, monitoring or other conditions required within the DMLs	The Applicant notes the MMO's response. The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early and extensive engagement was established with the NFFO and other fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An outline of this plan has been included with the Application (APP-065)	The MMO welcomes this clarification and has nothing to add at this deadline. The MMO will maintain a watching brief on any issues in relation to the Outline fisheries liaison and co-existence plan or commercial fisheries.
RR-020.88	**Shipping and Navigation** The MMO defers to the Maritime and Coastguard Agency and Trinity House on matters of shipping and navigation and supports any comments raised. The MMO will 25 continue to be part of the discussions relating to securing any mitigation, monitoring or other conditions required within the DMLs.	The Applicant notes this response and confirms that it has engaged extensively with the MCA throughout the pre-application period and will continue to engage with the MCA through the Examination period	The MMO welcomes this clarification and has nothing to add at this deadline. The MMO will maintain a watching brief on any issues in relation to Shipping and Navigation.
RR-020.89	**Marine Archaeology and Cultural Heritage** The MMO defers to Historic England (HE) on matters of marine archaeology and supports any comments raised. The MMO will continue to be part of the discussions relating to securing any mitigation,	This is noted by the Applicant.	Nothing to add at this deadline.

	monitoring or other conditions required within the DMLs		
RR-020.90	**Seascape, Landscape and Visual Resources** The MMO defers to NE as the SNCB, along with HE and the Local Planning Authorities on matters of Seascape, Landscape and Visual Resources and supports any comments raised. The MMO will continue to be part of the discussions relating to securing any mitigation and monitoring or other conditions required within the DMLs.	This is noted by the Applicant.	Nothing to add at this deadline.
RR-020.91	**Other Application Documents** Outline Marine Mammal Mitigation Protocol (MMMP)	This is noted by the Applicant.	See response to RR-020.92
RR-020.92	**Outline Marine Mammal Mitigation Protocol (MMMP)** It is noted that Section 1.8.2.3 of the MMMP (J17) refers to noise abatement systems (NAS) being required for high order (HO) detonation for UXO sizes larger than 130kg. The MMO advises that NAS will be required for all HO clearance events regardless of UXO size. The MMO therefore recommends that this is clear in the MMMP and UWSMS.	The Applicant notes the advice from the MMO and will follow any available published guidelines on noise abatement including the use of NAS, in the development and finalisation of the Outline underwater sound management strategy (UWSMS) (APP-068). The Final UWSMS will be finalised and agreed with the MMO post consent, prior to commencement of construction. For example, the Applicant notes the pending noise policy paper from Defra, announced at the MMO workshop, 13 March 2024, with our marine mammal specialists in attendance and will consider the noise policy paper when published. The Applicant maintains that the primary and tertiary measures put forward in the Outline MMMP (APP-072) were considered to be effective to reduce injury up to the realistic maximum of 130 kg and therefore no further mitigation was necessary. Table 4.33 of Volume 2, Chapter 4: Marine mammals (AS-010) shows that for high order clearance of 130 kg UXO, PTS could occur out to a maximum of 8,045 metres (for harbour porpoise) (based upon the modelling and assessment from peer reviewed models as detailed in Volume 3, Annex 3.1: Underwater sound technical report of the Environmental Statement)). Paragraph 4.9.3.16 subsequently sets out that based on the conservative swim speed applied in the marine mammal assessment (1.5 m/s for harbour porpoise) (APP-022), a total of 89 minutes of deterrence activities would ensure that animals were	The MMO notes that the UWSMS is a live document which will be updated through discussions with stakeholders, and, if NAS is required, will include this detail clearly in the final MMMP and UWSMS. As per MMO's original comment, the MMO requests that NAS (bubble curtain) is required for ALL high order clearance, and it is in the interest of the Applicant to plan for this at the earliest opportunity. The MMO would also highlight that this is consistent with the standard requirements within the conditions for all 2024 and 2025 UXO marine licences.

		clear of the risk (PTS) zone. Furthermore, Figure 1.3 of the Outline MMMP (APP-072) provides an example of a sequence of events for implementing primary and tertiary measures, to ensure that animals were clear of the risk (PTS) zone. The Applicant highlights that the final ADD duration will be agreed post-consent in the final MMMP (as secured under Schedule 3 and 4, Condition 20(1)(h) within the Draft DCO (Draft Development Consent Order AS-003) and Outline MMMP (APP-072)), in consultation with relevant stakeholders including NRW, and will consider the balance between allowing an animal time to move away from the injury zone and reducing unnecessary additional noise which may cause disturbance. However, the use of Noise Abatement Systems (NAS) as a secondary mitigation technique will be considered post consent, once further details of the size and type of UXO are available (following detailed site investigation surveys) and the need for this option will be discussed with stakeholders as part of the final UWSMS (in accordance with the Outline UWSMS (APP-068)). The Applicant has made a commitment to considering the use of NAS as part of further mitigation options in the UWSMS if required (i.e. there remains a residual significant effect even with the inclusion of primary and tertiary measures adopted) and such measures will be discussed and agreed with stakeholders for the development of the final UWSMS. The UWSMS (APP068) is a live document which will be updated through discussions with stakeholders, and, if NAS is required, will include this detail clearly in the final MMMP and UWSMS.	
RR-020.93	**Underwater Sound Management Strategy (UWSMS)** Section 1.6.2.4 of the UWSMS (J13) refers to the MMMP (J17) which details the primary and tertiary mitigation which mitigates impacts up to a clearance of 130kg. However, for UXO sizes larger than 130kg the use of further sound abatement measures may be considered as an option and refined post-consent as part of the final UWSMS. As per point 5.1.1 NAS (Bubble curtain) will be required for all	The Applicant notes the response and recommendation to use NAS for all high order clearance events. The Applicant refers the MMO to the response to RR020.92, which details the Applicant will follow any published guidelines on noise abatement at the time the UWSMS (APP-068) is finalised. The UWSMS (APP-068) is a live document which will be updated through discussions with stakeholders, and if there is a requirement to use NAS, the Applicant will include this detail clearly in the final UWSMS (and the final MMMP), which will be discussed with stakeholders and agreed with MMO prior to commencement of construction.	The MMO notes that the UWSMS is a live document which will be updated through discussions with stakeholders, and, if NAS is required, will include this detail clearly in the final MMMP and UWSMS. As per MMO's original comment, the MMO requests that NAS (bubble curtain) is required for ALL high order clearance, and it is in the interest of the Applicant to plan for this at the earliest opportunity.

	HO clearance events regardless of the UXO size. MMO recommend that this is made clear in the UWSMS.		The MMO would also highlight that this is consistent with the standard requirements within the conditions for all 2024 and 2025 UXO marine licences.
RR-020.94	**Outline Fisheries Liaison and Coexistence Plan** The MMO welcomes and notes that an Offshore Fisheries Liaison Officer (OFLO) will be appointed, alongside a Company FLO and a Marine Coordinator for Morgan OWF.	The Applicant notes and welcomes the MMO's response.	Nothing further to add.
RR-020.95	Advice should be sought via the FLO when the timetable of works is known so that the local industry can provide real-time advice.	The Applicant notes and accepts the MMO's response. Proposed measures for fisheries liaison at all project phases, are presented in the Outline fisheries liaison and co-existence plan (APP-065). A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders.	The MMO acknowledges this comment and will continue to keep a watching brief on the document and consultee responses.
RR-020.96	The MMO would note that the MMO will not act as arbitrator in regard to compensation and will not be involved in discussions on the need for or amount compensation being issued. This needs to be made clear within the Outline Fisheries Liaison and Coexistence Plan.	The Applicant notes the MMO's response. The Final FLCP will ensure this point is made clear.	The MMO looks forward to reviewing the updated Plan.
RR-020.97	**Outline Offshore Written Scheme of Investigation (WSI)** The MMO defers to HE on the Outline Offshore WSI and supports any comments raised. The MMO will continue to be part of the discussions relating to any conditions within the DML	This response is noted by the Applicant	Nothing to add at this deadline
RR-020.98	**Habitats Regulations Assessment** The MMO defers to and supports NE as SNCB regarding the derogation case proposed	The Applicant notes that the MMO defers to and supports NE as SNCB, however, the applicant has not proposed a derogation case and no derogation is needed. The Information to Support Appropriate Assessment (ISAA) concluded there would be no Adverse Effect on Integrity (AEoI) on any European sites as a result of the Morgan Generation Assets alone or in-combination with other plans and	The MMO notes Natural England's concerns that the range of predicted collision impacts presented in the HRA are not based on the collision risk modelling (CRM) calculated using the SNCB advised model parameters. NE has requested an

		projects. Furthermore, there has been no indication that a derogation case would be required through the Evidence Plan process and discussions with Expert Working Groups, for example please see the minutes of the Morgan and Mona Evidence Plan Offshore Ornithology meeting 7 (08/12/2023) in D.8.1 Technical engagement plan appendices Part 4 (Appendix D) (APP-092). Therefore, a derogation case is not required.	updated assessment which clearly presents CRM outputs based on all SNCB advised parameters. NE also raised outstanding concerns relating to displacement assessments and subsequent apportioning undertaken. The MMO note that NE consider the full range of SNCB advised displacement and mortality rates must be considered when apportioning impacts. The MMO will keep a watching brief of updates to the HRA and any resolutions to this point.
RR-020.99	The MMO will keep a watching brief on these documents and would ask for any compensation requirements to be included within the DCO at this stage to ensure all parties have reviewed the wording, should the Secretary of State be minded to include compensation.	The Applicant is not proposing to submit any documents for compensation requirements within the DCO because a derogation case is not required. The results of the ISAA concluded there would be no Adverse Effect on Integrity (AEoI) on any European sites as a result of the Morgan Generation Assets alone or in-combination with other plans and projects. Furthermore, there has been no indication that a derogation case would be required through the Evidence Plan process and discussions with Expert Working Groups, for example please see the minutes of the Morgan and Mona Evidence Plan Offshore Ornithology meeting 7 (08/12/2023) in D.8.1 Technical engagement plan appendices Part 4 (Appendix D) (APP-092). Therefore, no derogation case nor compensatory measures will need to be progressed	The MMO notes that the Applicant has provided comments in REP1-010 - Response to Hearing action points regarding offshore Ornithology issues raised at ISH1. The MMO will keep a watching brief of NE response to this document.
RR-020.100	**Marine Conservation Zone Screening Report** The MMO defers to and supports NE as SNCB regarding impacts to Marine Conservation Zones for the Project.	The Applicant notes this response.	Nothing to add at this deadline.
RR-020.101	The MMO will keep a watching brief on this document and discussions in relation to MCZs and would remind the Applicant that any mitigation secured through these assessments will need to be included within the conditions on the DML.	The Applicant notes this response. The Marine Conservation Zone (MCZ) screening report (APP-101) concludes that the construction, operation and maintenance and decommissioning of the Morgan Generation Assets is unlikely to have the potential to directly or indirectly affect the interest features of any MCZ. The Applicant notes that Natural England, in their Relevant Representation RR-026.18, agree with the Applicant's MCZ screening conclusions. Based on this	The MMO welcomes this clarification and has nothing to add at this time.

		conclusion the Applicant does not consider mitigation measures necessary.	

2. MMO comments on the updated DCO/DML (REP1-021)

2.1. The MMO acknowledges the revisions to the draft DCO (dDCO) which have been submitted by the applicant in their Deadline 1 submission. The MMO provided initial comments on the dDCO in its Deadline 1 submission, which have been included for reference in Table 1. The MMO hopes to see further amendments to the dDCO during the examination process.

2.2. Transfer of the Benefit of the Order

2.2.1. The MMO objects to the provisions relating to the process of transferring and/or granting the deemed marine licences set out in the draft DCO at Article 7.

2.2.2. If the application for the DCO is granted, the MMO will be the regulatory authority responsible for the enforcement of the provisions of the DMLs. As a result, it must retain a record of the DML and who holds the benefit of that license in order to be able to fulfil its statutory responsibilities as it does in respect of any other Marine Licence.

2.2.3. The Marine and Coastal Access Act ("the 2009 Act") addresses the procedure for transfer of a Marine Licence as follows:

"(7) On an application made by a licensee, the licensing authority which granted the licence—

(a) may transfer the licence from the licensee to another person, and
(b) if it does so, must vary the licence accordingly.

(8) A licence may not be transferred except in accordance with subsection (7)."

2.2.4. The purpose of these provisions is to ensure that there is at all times a record of the person who has the benefit of the licence. That is because pursuant to the 2009 Act section 65(1), no person may carry on a licensable marine activity, or cause or permit any other person to carry on such an activity, except in accordance with a marine licence granted by the appropriate licensing authority. A person who contravenes section 65(1), or fails to comply with any condition of a marine licence, commits an offence (see section 85(1) of the 2009 Act).

2.2.5. Thus, it is a key part of the enforcement provisions of the 2009 Act, that the MMO maintains a record of the person who has the benefit of a marine licence at all times.

2.2.6. In practice, the process of obtaining a transfer is relatively quick. Whilst the MMO officially indicates that this can take up to 13 weeks, it is an administrative task and in practice often much quicker and around six weeks. The MMO is not required to

consult with any other body. As far as it is aware, the MMO has never refused a request to transfer a Marine Licence.

The current draft DCO Article 5 Procedure

2.2.7. As presently drafted, dDCO Article 7(2) creates a power whereby the undertaker can:

"a) transfer to another person ("the transferee") any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be agreed between the undertaker and the transferee; and

b) grant to another person ("the lessee") for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be so agreed, except where paragraph (6) applies, in which case the consent of the Secretary of State is not required."

2.2.8. Article 7(3) provides a power to the undertaker to:

"a) where an agreement has been made in accordance with paragraph (2)(a), transfer to the transferee the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be agreed between the undertaker and the transferee; and

b) where an agreement has been made in accordance with paragraph (2)(b), grant to the lessee for the duration mentioned in paragraph (2)(b), the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be so agreed, except where paragraph (6) applies, in which case the consent of the Secretary of State is not required."

2.2.9. The consent of the Secretary of State to a transfer/grant pursuant to Article 7(2) or 7(3) is required except where Article 7(6) applies. Where the Secretary of States consent is required, the dDCO Article 7(4) provides that:

The Secretary of State must consult the MMO before giving consent to the transfer or grant to another person of the benefit of the provisions of the deemed marine licences (see dDCO Article 7(4)).

The MMO notes that it is not explicitly stated that the undertaker must consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application.

2.2.10. The Secretary of State's consent to the transfer or grant of a DML is not required and thus there is no requirement for consultation with the MMO prior to the undertaker making that transfer or grant where:

"a) the transferee or lessee is the holder of a licence under section 6 of the 1989 Act (licences authorising supply etc.)."

The Basis for Objection

2.2.12. The MMO raises objection to Article 7 in relation to:

a) The procedure seeking to duplicate the existing statutory regime set out in s72 of the 2009 Act;
b) The proposed procedure being cumbersome, more administratively burdensome, slower and less reliable than the existing statutory regime set out in s72 of the 2009 Act;
c) No pre-consultation required with the Secretary of State;
d) The power for an undertaker to grant a DML;
e) The power to grant a DML for a period of time;
f) The basis for disapplication of the need for Secretary of State's consent to a transfer/grant for DML is unrelated to any matters relating to marine licensing.
g) The absence of any power provided to the MMO to change the DML held in its records to reflect any transfer.
h) The overall effect on the ability of the MMO to enforce the marine licensing regime in respect of any transferred or granted DML.

Previous DCOs

2.2.13. It is acknowledged that DCOs previously granted have removed the effect of s72 of the 2009 Act and made provision for the transfer of DMLs including by way of example, Sheringham Dudgeon OFW, Times Tideway Tunnel DCO and Sizewell C DCO.

2.2.14. However, it is to be noted that in very few, if any, do the relevant ExAs explain the rationale for the approach adopted. The same is true of the relevant decision letters. To date, the Applicant has not provided the MMO with any ExA Report or Decision letter which explains why the approach it seems to adopt in the dDCO is appropriate nor indeed to be preferred to the existing statutory procedures.

2.2.16. The MMO notes within Rampion 2 OWF Examination Dogger Bank Creyke Beck Offshore Wind Farm was raised as a precedent. The ExA in that case addressed the issue of transfer at paragraph 15.25 and following. At Para15.26 it explained that the Applicant in that case and the MMO had reached agreement in relation to the issue of transfer as follows:

"The MMO also requested that additional drafting be included in Article 8, such that it would be consulted prior to any transfer of the benefits of the Order, providing details such as the person responsible for carrying out the activities, location and timing of works etc (REP-274). The applicant and the MMO reached agreement on this point, such that version 5 of the draft DCO included the proposed insertion of a clause at Article 8(7) which would require the undertaker to consult the MMO prior to the transfer to another person; and inclusion of an amendment to Article 8(9) which requires the MMO to be

informed in writing within 14 days (previously 21 days) should any agreement come into effect which transfers the relevant provisions to another person (REP-480). These proposed changes have been carried forward into Article 8 of the ExA's recommended DCO, together with some minor changes to the drafting in the interests of clarity, which don't materially alter the intention and effect of the articles which have been subject to examination."

2.2.17. Thus, the Dogger Bank decision did not determine that the mechanism now proposed is to be preferred to the statutory mechanisms – rather it was a compromise reached between the parties in that case. The MMO has consistently challenged provisions of this nature in draft DCOs as the existing statutory procedure is to be preferred to mitigate risk on all parties by using established mechanisms.

2.2.18. None of the ExA Reports or Decision Letters relating to the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024 raised by the Applicant contain any rationale for the transfer provisions. In addition to this no other projects (Hornsea Four Offshore Wind Farm Order 2023, East Anglia One North Offshore Wind Farm Order 2022, East Anglia Two Offshore Wind Farm Order 2022, Sizewell C or Thames Tideway Tunnel) contain any rationale.
To date the Applicant has not identified any reasoned justification in any previous decision which explains why the transfer process which it proposes is justified and to be preferred over the existing statutory mechanism.

2.2.19. The MMO, of course, accept that there is a need for consistency in decision making. However, a decision maker is not bound by previous decisions and can depart from them where there is good reason to do so.

2.2.20. If the Secretary of State in the present case determined that on balance, the existing statutory mechanisms relating to transfer of marine licenses is to be preferred to the mechanism proposed in the dDCO, then it is open to him to so determine provided he gives reasons for so doing. The absence of any reasoned decision which determines the point previously and which provides a rationale for departing the existing statutory mechanism is a reason to look at this issue again.

<u>Materially Inferior Procedure</u>

2.2.21. As explained above, the statutory system for transfer requires an application to the MMO. There is no further consultation, and the transfer is given effect by amendment to the licence holder section of the Marine Licence. The MMO does not have any relevant statutory or non-statutory policy relating to the transfer of a licence – it is essentially a purely administrative act to ensure that the licence contains the name of the person with the benefit of the licence. As explained, as far as the MMO is concerned it has never refused an application for a transfer.

2.2.22. In contrast, the dDCO Article 7 procedure requires:

a) An application to the Secretary of State;
b) Consultation with the MMO;

c) A decision by the Secretary of State;
d) Notification of the decision;

2.2.23. Given the contrast between the two procedures, the MMO does not consider that the dDCO procedure has any material procedural or administrative advantages over the existing statutory process. Indeed, the dDCO procedure is decidedly more complex, is more administratively burdensome for all parties, and will take longer to give effect to a transfer. The MMO believes that as a result the dDCO should be amended to remove the mechanisms to enable transfer of the DMLs and to remove the exclusion of the existing s72 process; the statutory regime which already exists is a much better option for all and should remain applicable.

Pre-application consultation with the Secretary of State

2.2.24. The MMO notes that there is not a mechanism for pre-consultation with the Secretary of State – should the Secretary of State decide to include the transfer of benefit this pre-consultation would be welcomed in the form of the following wording:

"*(X) The undertaker must consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application."*

The Grant of a DML

2.2.25. dDCO Articles 7(2)(b) and 7(3)(b) seek to make provision for the undertaker to "grant" another person the "benefit of the provisions of the Order (including the deemed marine licences for Article 7(3)(b)) and such related statutory rights as may be so agreed" or "the whole of any of the deemed marine licences and such related statutory rights as may be so agreed".

2.2.26. This appears to be drawn from Article 9(1)(b) of the Sizewell C DCO, although it is unclear from the wording of that provision whether the power to grant "the benefit of the provisions of this Order and such related statutory rights" includes the power to grant a new DML to a third party. Further, the rationale for the inclusion of such a power or the basis upon which it is to be exercised is not explained in the DCO, the ExA Report or the Decision Letter for the Sizewell C project.

2.2.27. The Applicant has not justified or explained:

a) Why it is necessary for it to have the power to **grant** a DML;
b) Why it is necessary for it to have the power to **grant** a DML when it would have a power to transfer a DML;
c) The basis on which such a power to grant will be exercised;
d) The basis on which it will determine whether or not grant a DML
e) The basis on which it will determine the conditions to be imposed on the grant of a DML;
f) Why it is appropriate for it to be able to grant DMLs without the consent of the Secretary of State or the MMO.

2.2.28. The MMO considers that the power sought for the undertaker to grant a DML would confuse and usurp its statutory function. It would allow licences to be granted on terms wholly different from those accepted as part of the DCO process. The power to grant a DML should therefore be removed from the dDCO.

2.2.29. In the event that its primary position that the existing statutory mechanism should remain applicable is rejected, the MMO considers that, at most, the power to transfer the benefit of an existing DML to another person is all that is required.

A Time Limited DML

2.2.30. dDCO Article 7 (3)(b) seeks to make provision for a DML to be granted by the undertaker to another person for a limited period of time.

2.2.31. The only precedent for this provision which the MMO has found is Article 9(1)(b) of the Sizewell C DCO, to the extent that that power applies to DMLs (which is unclear). The Sheringham DCO does not provide a power for the undertaker to grant a DML for a limited period of time.

2.2.32. The Applicant has not explained why these provisions are necessary or why a departure from the statutory provisions within the 2009 Act is justified.

2.2.33. In the event that its primary position that the existing statutory mechanism should remain applicable is rejected, the MMO considers that, if the intention is to enable the transfer of the benefit of a DML to a third party for a defined period of time, with the benefit of that DML then reverting to the undertaker at the end of that period, a provision can be drafted to give effect to this.

Disapplication of the Secretary of State's Consent

2.2.34. As explained above, Article 7(6) disapplies the need for the consent of the Secretary of State to be obtained and the need for any consultation with the MMO where:

(a) the transferee or lessee is the holder of a licence under section 6 of the 1989 Act

2.2.35. Whilst it is recognised that the drafting here reflects earlier DCOs, the rationale for the removal of the need for consent or consultation when this criteria is met has not been explained. The Applicant has not explained why the fact that the transferee holds a s6 licence should mean that the consent of the Secretary of State is not required nor that consultation with the MMO is unnecessary.

2.2.36. In the absence of any clear justification for excluding a consent process, consent should be required to reflect the process in section 72 of the 2009 Act. In other words, a transfer of a DML should not be given effect unless it has been approved by a decision maker. The MMO's primary position is that the statutory mechanism should remain applicable and that it should remain the relevant decision maker. If that is rejected then the next best option would be for the Secretary of State to be

the relevant decision maker but unable to consent to the transfer without the approval of the MMO. If that is rejected, then the next best option would be for the Secretary of State to be the relevant decision maker in consultation with the MMO.

It is not acceptable, however, for the Applicant (or any successor) to be able to transfer a DML to whomever they wish whenever they wish which is eventually the effect of the provisions in the dDCO.

Power to Amend DMLs to Reflect a Transfer

2.2.37. The MMO is a statutory body. As a result, it can only act where it has statutory power to do so. The dDCO provides for the transfer of a DML, however it does not give the MMO the power to amend the DML it holds in its records upon notification that a transfer is to occur. This has the potential to cause real difficulties going forward since, in the absence of such a power, the MMO records will not be changed. This is likely to cause significant administrative difficulties and could result in obstacles to enforcement.

1.2.38. Such a confusion is but one symptom of the complications which result from the dDCO's proposed transfer mechanism. This reinforces the MMO's primary position that the existing statutory mechanism is to be preferred and to remain applicable.

1.2 39. If the Secretary of State was to retain the Article, then the MMO would still require the Applicant to submit a DML variation to the MMO to ensure the undertaker is updated to the correct entity within the DML and within the MMO's systems.

Overall Effect on Ability to Enforce

2.2.40. As drafted, the ability to transfer licences, grant licences for a limited time, to transfer/grant without consultation and without providing a power for the MMO to amend its records, will give rise to significant enforcement difficulties for the MMO and has the potential to prejudice the operation of the system of marine regulatory control in relation to the proposed development. Further, the dDCO procedure is administratively burdensome and time consuming.

2.2.41. All of these difficulties can be avoided by retaining the existing statutory regime which is simple to operate and relatively speedy. The best way forward for all concerned is to retain the statutory procedure for transfer as set out in s72 of the 2009 Act. This will also require changes to Part 1 Paragraph 7 of each dDML.

2.3. Schedule 3 and 4 (Deemed Marine Licences)

Part 1: paragraph 9

2.3.1. The MMO seeks changes to Part 1 paragraph 9 to both DMLs. The MMO's proposed amendments are shown in bold (the Applicant's wording struck through):

"Part 1: Paragraph 9: "Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement, and approval for an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it ~~is unlikely to~~ ***will not*** *give rise to any material new or materially different environmental effects from those assessed in the environmental statement."*

2.3.2. This change is necessary to ensure that the power to amend or vary is consistent with the requirements of the EIA regime as explained in the case of R. (Barker) v Bromley LBC [2007] 1 A.C. 470. That case concluded that EIA will be required at stages subsequent to an initial grant of consent where those likely significant effects were not identified at the earlier consenting stage. It follows that a mechanism to permit a variation or amendment will not be lawful until it prevents any possibility of a materially new or different significant environmental effects arising as a result of the variation or amendment.

2.3.3. As stated in Table 1, the MMO notes that the Applicant informed the MMO during a meeting dated 21 October 2024 that Paragraph 9 will be amended as requested. The MMO will look out for this in the updated DML and consider this point to be resolved.

Condition 19

2.3.4. Condition 19 Force Majeure provides as follows:

"If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO."

2.3.5. The MMO has previously requested the removal of this clause. That is because it unnecessarily duplicates the effect of s.86 of the 2009 Act. If it is to be retained, then the relationship between this clause and section 86 of the 2009 Act should be clarified.

2.3.6. The MMO welcomes the applicant's comments regarding Force Majeure in point RR-020.33 of document PD1-017 regarding the Applicant's response to Relevant Representations. The MMO is currently reviewing the Applicant's comment and will provide a response in due course.

3. MMO comments on the Applicants response to Seasonal Piling Restrictions (REP1-009)

3.1. The MMO case team are still consulting with its technical advisors and will therefore provide detailed responses to this document separately or within the MMO's Deadline 3 response.

4. MMO comments on the Applicant's response on the Statement of Common Ground between Morgan Offshore Wind Limited and the Marine Management Organisation (REP1-035)

4.1. The MMO attended a meeting with the Applicant on 9th October 2024 in which the categorisation of issues listed in the Statement of Common Ground (SoCG) were discussed. There was no disagreement between the MMO and the Applicant as to the status of any listed issues. Confirmation of the MMO's position on outstanding issues is summarised below. As requested by the ExA, the MMO will provide updated comments on the Statement of Commonality at Deadline 3.

4.2. The MMO has identified several points within the Applicant's SoCG which can be amended from 'Ongoing point of discussion' to 'Agreed'. These are highlighted in Table 1 which refers to MMO comments from RR-020 and the MMO's review of the Applicants pre-examination procedural deadline submissions.

4.3. There are several points which are an ongoing point of discussion regarding Marine Policy, dDCO, and the dDML (Table 1.10 REP1-035). These have been discussed in more detail in the above Table 1.

Yours sincerely

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