



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

The Applicant's Response to the Marine Management
Organisation's Deadline 3 Submission

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1 The Applicant's Response to the Marine Management Organisation's Deadline 3 Submission

1. This document presents the Applicant's response to the Marine Management Organisation's (MMO) Deadline 3 submissions [REP3-133]. The Applicant's comments on the MMO's responses to second written questions are provided in **The Applicant's Comments on Responses to the Examining Authority's Second Written Questions** [document reference 18.2].

Table 1-1 The Applicant's Response to MMO Deadline 3 Submission

ID	Stakeholder Comment	Applicant Response
1 General Comments		
1	<p>The MMO have review the applicants Statement of Common Ground (SoCG) and continue to work with them on this document. There are a couple points within this where the outcome is “Not Agreed – no material impact”. These are points that the MMO still consider important in the examination process but understand the applicant’s decision to not consider them further. These issues were discussed at the Issue Specific Hearings (ISH) 5 &6 and are detailed below in the MMOs written summary of submissions made.</p>	<p>Noted. The Applicant will continue to work with the MMO to refine the status of agreement on outstanding matters within SoCG, ahead of submission of a final version at Deadline 7.</p>
2 Written summaries of Oral Submissions to ISH 5		
Session 3, Agenda Item 6 - The extent, scope and security of mitigation for marine mammals		
<p>i. Is there agreement on the content, scope and level of mitigation secured in the Marine Mammal Management Protocol [REP1- 014]? If not, what amendments are perceived to be required in order for agreement to be reached?</p>		
2	<p>The MMO were largely content with the mitigation measures proposed, which are in keeping with other offshore wind developments. However, there were some reservations regarding the breaks in piling:</p> <p>The MMO have previously cited the Joint Nature Conservation Committee’s (JNCC) (2010) guidance following concerns with the applicants comment that “any breaks in piling of more than 10 minutes and less than 2 hours, piling can recommence, with 5 to 6 blows at low energy (300kilojoules (kJ) or 320kJ lowest possible hammer energy), followed by piling at full energy”. JNCC guidance recommends that if there is a pause in piling operations for a period of greater than 10 minutes, then the pre-piling search and soft-start procedure should be repeated before piling recommences. If a watch has been kept during the piling operation, the Marine Mammal Observers (MMObs) or Passive Acoustic Monitoring Operators (PAM-Ops) should be able to confirm the presence or absence of marine mammals, and it may be possible to commence the soft-start immediately. The guidance recommends that the soft-start duration should be a period of not less than 20 minutes. Any requested variation from a 20-minute soft-start should be agreed with the relevant agency and regulator. The MMO previously recommend that this guidance is adhered to, and the full soft start of</p>	<p>The Applicant welcomes that the MMO’s previous concerns around piling breaks have been addressed in the Draft MMMP (Revision B) [REP1-013].</p>

ID	Stakeholder Comment	Applicant Response
	<p>20 minutes is implemented (not 5 to 6 blows at low energy as is proposed in the MMMP).</p> <p>The MMO have reviewed the revised MMMP and it appears to have sufficiently addressed previous reservations. The revised MMMP proposes that for any breaks in piling of more than 10 minutes, the full mitigation procedure is required, including 30-minute monitoring of the Monitoring Area (MA) by MMObs and / or Passive Acoustic Monitoring, Acoustic Deterrent Device deployment and activation for the required time, followed by the soft-start and ramp-up procedure (for a minimum of 20 minutes). Monitoring of the MA during any breaks in piling will be conducted by MMObs during daylight hours and suitable visibility or by PAM-Ops during poor visibility or at night. If monitoring was conducted during piling prior to any breaks and the MA has been confirmed as having no marine mammals, then it may be possible to commence the soft start immediately. The soft-start and ramp-up procedure would be for a minimum of 20 minutes as outlined in the JNCC guidance. The MMO believe that this approach is in keeping with best practice guidance.</p>	
<p>ii. Does Natural England and the Marine Management Organisation consider that there are any fundamental issues remaining, on either an Environmental Impact Assessment or Habitats Regulation Assessment basis, in respect of marine mammals that warrant further work to be done? Explain with reasons</p>		
3	<p>The MMO have no major outstanding concerns with the Habitats Regulation Assessment (HRA) but largely defer to Natural England on this.</p>	<p>Noted.</p>
4	<p>There are still some remaining reservations regarding the Environmental Impact Assessment, we think still require addressing</p>	<p>Noted. The Applicant will continue to work with the MMO to address matters as far as possible.</p>
<p>Comments on Chapter 10 – Marine Mammal Ecology:</p>		
5	<p>The Cumulative Impact Assessment (CIA) screening identified that there is the potential for cumulative impacts on marine mammals as a result of disturbance from underwater noise during piling and other construction activities, including vessels at SEP and DEP. Other potential impacts, including Permanent Threshold Shift (PTS) from underwater noise and Temporary Threshold Shift (TTS) from underwater noise, were screened out of the CIA. All operational impacts have also been screened out of assessment. There does not appear to</p>	<p>The Applicant confirms that the justification for screening out PTS from the CIA is provided in ES Appendix 10.3 Marine Mammal CIA Screening [APP-193], as is the justification for screening out operational impacts. The potential for TTS / fleeing response has been screened in for assessment, but only assessed where there is limited information available in order to inform an assessment of disturbance for each activity.</p>

ID	Stakeholder Comment	Applicant Response
	<p>be a justification for scoping out PTS and TTS from underwater noise or operational impacts, unless this is included in the CIA screening.</p> <p>Paragraph 309 and 709 of Chapter 10: <i>“The approach to the assessment for cumulative disturbance from underwater noise for harbour porpoise has been based on the approach for the assessment of disturbance in Section 10.6.1.2, including the current advice from the SNCBs (JNCC et al., 2020) on the assessment of impacts on the SNS SAC. The potential disturbance from underwater noise during piling for other marine mammal species has been assessed based on the worst-case maximum area modelled for SEP and DEP for each species, using TTS / fleeing response as a proxy for disturbance, where no further information of potential disturbance impact ranges are available”</i>. The MMO have previously noted that is not considered appropriate to use the TTS-onset thresholds as a proxy for disturbance. TTS occurs at much higher sound exposures, and so will underestimate the risk of disturbance. The MMO are aware that justification for this has been provided and will review for deadline 4</p>	<p>Natural England is in agreement with the Applicant's position to screen the potential for PTS out of the cumulative assessment (see REP3-147). Further, the screening out of PTS from the cumulative assessment is in line with a number of other recent offshore wind farm applications, including Norfolk Vanguard and Norfolk Boreas, East Anglia ONE North, TWO and THREE, Hornsea Project 3 and Hornsea Project 4. Further information on the screening out of PTS in the cumulative assessment can be found in the Applicant's response to the MMO's responses to second written questions (Question 2.12.2.5) in The Applicant's Comments on Responses to the Examining Authority's Second Written Questions [document reference 18.2].</p> <p>An updated cumulative assessment for the potential for disturbance due to underwater noise associated with offshore wind farm development (piling and other construction activities) has been provided within the Marine Mammals Technical Note and Addendum [REP3-115] submitted at Deadline 3.</p>
6	<p>Paragraph 308 of Chapter 10: <i>“There are currently no agreed thresholds or criteria for the behavioural response and disturbance of marine mammals, therefore it is not possible to conduct underwater noise modelling to predict impact ranges”</i>. The MMO agree that there are currently no agreed behavioural thresholds for marine mammals. One approach is to use species-specific dose-response curves to assess disturbance from piling. Dose response curves should be based on current, appropriate, peer-reviewed literature. Generally, noise contours at 5 dB intervals are generated by noise modelling and overlaid on species density surfaces to predict the number of animals potentially disturbed.</p>	<p>See the Marine Mammals Technical Note and Addendum [REP3-115], as requested by the MMO, dose response curves have been provided for harbour porpoise, grey seal and harbour seal in line with current best practice. It is currently not possible to undertake a dose-response curve assessment for other marine mammal species groups (i.e. dolphin or whale species) due to a lack of information and data available.</p>
7	<p>Paragraph 399 (and elsewhere in the chapter): <i>“The results of the underwater noise modelling (Table 10-60) indicate that any marine mammal would have to be less than 100m (precautionary maximum range) from the continuous noise source for 24 hours, to be exposed to noise levels that could induce PTS or TTS, with the exception of harbour porpoise and the predicted impact ranges for TTS of 1km for rock placement and 0.2km for dredging, based on the Southall et al. (2019) non-impulsive thresholds and criteria for SELcum”</i>. Please note that as the noise modelling incorporated a fleeing animal receptor, the results</p>	<p>Noted.</p>

ID	Stakeholder Comment	Applicant Response
	<p>indicate that any marine mammal would be at risk of PTS or TTS if they were less than 100m from the continuous noise at the start of the activity (and not necessarily at 100m for 24 hours as the report suggests).</p>	
<p>Comments on Appendix 10.2 Underwater Noise Modelling Report:</p>		
8	<p>The predictions of the simultaneous piling are provided in section 5.3 of the Underwater Noise Modelling Report. Contour plots and summary tables of results are provided for each scenario. This modelling is based on a fleeing receptor for marine mammals (and both a stationary and fleeing receptor for fish). However, apart from the flee speeds, the report does not provide any detail on the fleeing assumptions or receptor movements. The MMO note would be helpful if the report could include an explanation as to how the simultaneous piling assessment was conducted. For example, the model used to simulate fleeing behaviour should be clearly described, including the following parameters, which all affect the amount of noise an animal may be estimated to be exposed to: the time (e.g. onset of activity) or noise level at which animals are assumed to begin responding; the direction in which they flee (especially in the case of scenarios assuming multiple location/simultaneous piling when the assumptions might be less obvious); whether there is a maximum distance or minimum sound level at which animals will cease to respond; whether animals are assumed to continue fleeing, remain stationary, or return toward the noise source/s during temporary cessations in noise-generating activity.</p>	<p>As noted at ID 173 of Table 4.12.1 of The Applicant's Comments on Relevant Representations [REP1-033], a relatively simple fleeing model is used. Two effective situations are run to build each scenario: firstly, a receptor begins from the position of one of the piles and flees away from this in the combined two-source sound field, 360 degrees. The model is re-run with the receptor starting from the second piling location, and these results are combined with the final contour being the greatest outline of the two impact ranges.</p> <p>Receptor responds immediately to piling and continues at this speed for the duration of piling. If a receptor reaches land, it stops there and continues to build exposure.</p> <p>As the majority of noise exposure occurs when the receptor is closest to the piling, the exact behaviour at long-range is less critical to the final result than may initially appear.</p> <p>During temporary cessations (i.e. between piles), the receptor stops, this is considered a reasonable mid-way presumption between continuing to swim away and an instant return towards the previous noise source.</p> <p>The Applicant can update Appendix 10.2 Underwater Noise Modelling Report [APP-192] to reflect this response if the MMO deem that to be required.</p>
9	<p>It will be important to verify the predictions made in the Environmental Statement through construction noise monitoring.</p>	<p>In the event that piled foundations are used, provision for underwater noise monitoring of the first four piles is secured through the DMLs under condition 19(2) in Schedules 10 and 11 and condition 18(2) in Schedules 12 and 13 of the draft DCO (Revision G) [document 3.1].</p>

ID	Stakeholder Comment	Applicant Response
10	To aid comparison of predicted versus measured data, the noise modelling report should include a plot showing the predicted received levels versus range for both monopiles and pin piles, for representative hammer strikes.	As noted at ID 172 of Table 4.12.1 of The Applicant's Comments on Relevant Representations [REP1-033], this is not standard, and may lead to unrepresentative comparisons. There is an attempt to select "worst case" locations for modelling, with ranges identified at these locations, but if these locations are not measured during on-site verification, then the comparison may be unrealistic. However, the possibility of including plots of single-strike maximum and minimum (1 st strike) energies at fixed dB intervals could be investigated. As set out in The Applicant's Comments on Responses to the Examining Authority's Second Written Questions [document 18.2], the Applicant will discuss this response further with the MMO / Cefas and seek to reach agreement on any outstanding matters.
11	The Examiner asked during the hearing whether further underwater noise monitoring will be required during the examination period to satisfy the MMO. The MMO can confirm that no further underwater noise monitoring is required during examination, and that the standard monitoring secured post consent is sufficient.	The Applicant welcomes this position.
Section 4, Agenda Item 7		
iii. The Marine Management Organisation continue to raise objection to the use of the phrase "materially" within the context of the draft Development Consent Order and Deemed Marine Licenses [REP2-059, paragraph 8.9]. The ExA notes the argument of precedence raised by the Applicant. Can the MMO explain why, if that phrase has been accepted by the SoS in other consented DCOs, it is inappropriate for that phrase to be used in this instance?		
12	The MMO strongly considers that the activities authorised under the DCO and DML should be limited to those that are assessed within the Environmental Impact Assessment (EIA), 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 MMOs position was that wording should be updated to 'do not give rise to any new or different environmental effects to those assessed in the environmental information'.	The Applicant has provided a detailed response to the points raised by the MMO within The Applicant's Comments on the Marine Management Organisation's Deadline 2 Submission [REP3-105] and within the Written Summary of the Applicant's Oral Submissions at Issue Specific Hearing 5 [REP3-111]. In summary, the Applicant considers the use of the phrase materially to be entirely in accordance with general planning and EIA principles and the processes routinely undertaken to apply for amendments and variations of any consent in an EIA context. In addition, the Applicant also highlighted that:
13	The MMO have previously raised concerns with the term 'materially' in examinations for projects including Sizewell C, Hornsea 4, and Boston Alternative energy facility. This is based on our experience in working under the made DMLs of past projects. One of the issues with the Nationally Significant	

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	<p>Infrastructure Projects (NSIP) process is the delay between a decision being made on an application, and then the construction and operation of these projects. These delays mean that we become aware of issues with the drafting of the DMLs in terms of enforceability, years after project decisions have been made. As a licensing case team as a whole we now have a wealth of experience in post consent work under Deemed Marine Licences, and we intend to use that experience to continually improve the advice we provide to the Secretary of State (SoS) for NSIP projects, using the best available evidence we have.</p>	<ul style="list-style-type: none"> • The wording is used within each DML in relation to amendments and variations and those amendments and variations can only be done in agreement with the MMO; • Each DML requires an offshore operations and maintenance plan (OOMP) to be submitted for approval to the MMO which sets out what would and would not require a new marine licence and therefore what would be considered 'material' in terms of activities undertaken during the operational phase; and
14	<p>In this DCO and the DML, the applicant wants flexibility in terms of the design details. 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 EIA.</p>	<ul style="list-style-type: none"> • Furthermore, each OOMP is a collaborative plan which remains live throughout the operation of the offshore wind farms. The relevant DML condition requires the OOMP to be resubmitted for review every 3 years by the MMO and therefore the offshore operation and maintenance activities are subject to continued monitoring and control by the MMO through this mechanism.
15	<p>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 EIA, providing they do not do so materially, i.e. 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. The other issue with this is that 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 essentially means that the undertaker makes the decision as to what is and what is not material. Under EIA it is for the appropriate authority to determine what the likely significant effects will be and how those should be mitigated.</p>	
16	<p>This was the reasoning for the MMO to not consider it 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 EIA.</p>	

ID	Stakeholder Comment	Applicant Response
3 Written summaries of Oral Submissions to ISH 6		
Session 4, Agenda Item 8 – Draft Development Consent Order		
<p>i. Regarding the comments from the Marine Management Organisation for Deadline 2 [REP2-059], whether Part 2, Article 5 of the draft Development Consent Order (Benefit of Order) allows for the transfer or temporary lease of the benefits of the draft Marine Licences in a way which would be a significant departure from the current statutory framework set out by Marine and Coastal Access Act 2009?</p> <p>Also, whether there would be sufficient involvement in such circumstances by the Marine Management Organisation in considering a proposed transfer or lease of development order benefits?</p>		
17	<p>The MMO wish to highlight that within the Marine and Coastal Access Act 2009 (MCAA), its states the following: Section 72, sub section (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).</p>	<p>The Applicant has provided a detailed response to the points raised by the MMO within The Applicant's Comments on the Marine Management Organisation's Deadline 2 Submission [REP3-105] and within the Written Summary of the Applicant's Oral Submissions at Issue Specific Hearing 6 [REP3-112].</p> <p>In summary, the Applicant disagrees that transfers of the DMLs should be regulated by the provisions of section 72 of the MCAA 2009. Where a transfer of a deemed marine licence is proposed, the Secretary of State would be looking at that in the context of all the provisions of the DCO. There are some Articles and Requirements relating to offshore matters within the DCO which overlap with the deemed marine licences. In that context, it is entirely appropriate that the Secretary of State has the ability to approve the transfer of a deemed marine licence.</p>
18	<p>At the point of a DCO being made, the DML falls away from the DCO and comes under the MMOs jurisdiction. It therefore falls under MCCA for enactment and enforcement. Under MCCA it is only the licensing authority who have the power to vary a licence. At the point of the DCO being made the SoS has no power to alter or transfer the DML to another holder and does not have the power to allow the applicant to transfer the DML to another holder. The applicant will still require to come to the MMO for a variation of the DML to allow the transfer. While the applicant stated that the DMLs should be treated separate to a standard marine licence, the MMO wish to highlight that the DMLs are still subject to the same regulations as standard marine licences, and therefore the process for both is comparable.</p>	<p>With regards to concerns that Article 5 creates an additional step in the process, the Applicant highlights that this is not an unusual position where post consent changes are required to a DCO as explained in both the Written Summary of the Applicant's Oral Submissions at Issue Specific Hearing 6 [REP3-112] and The Applicant's Comments on the Marine Management Organisation's Deadline 2 Submission [REP3-105].</p>
19	<p>In considering the proposed provisions of Article 5 DCO, Article 5(2), being read with Article 5(4) introduces a process involving the Secretary of State providing consent to the transfer in certain circumstances, rather than the MMO as the</p>	<p>The Applicant reiterates that this position has been accepted by the Secretary of State repeatedly in the DCO context and the approach is well precedented in previous offshore wind DCOs.</p>

ID	Stakeholder Comment	Applicant Response
	regulatory authority for marine licences considering the merits of any application for a transfer.	
20	As the process proposed by the applicant is a significant departure from the current statutory framework in relation to marine licences, it has not been tested, it may therefore be the case that the applicant/undertaker will face unnecessary delays following it's application as it is not clear that the Secretary of State will have a process in place to deal with requests of this nature and it is not clear what any consultation period with the MMO would be.	
21	It is noted that the Secretary of State "must consult" the MMO (Article 5(5)) – however the obligation goes no further than this, the Secretary of State is not obligated to take into account the views of the MMO in providing its consent and there is no obligation for the MMO to be informed of the decision of the Secretary of State – only by the undertaker under Article 5(8). This provision merely states that the notification must be 'prior' to any transfer or grant and does not indicate any time scale.	
22	Despite the proposed changes to the process of transferring a marine licence it remains that neither the licence holder/undertaker nor the Secretary of State has any power to actually vary any terms of a marine licence and it will still therefore be necessary for the MMO to take steps to vary a marine licence to reflect that it has been transferred to another entity. To our mind the proposed mechanism for transfer of a marine licence does not actually work and in fact does little more than complicate the process.	
23	There are also very real practical concerns as to how the proposed process would work in practice. The transfer of the licence would happen first, and then the marine licence would need to be varied. After the transfer of the licence, the new license holder/undertaker would have a marine licence which would still be in the name of the license holder/undertaker who had transferred the licence. The new license holder/undertaker would have no authorisation to carry out any acts until the variation had taken place and until the variation had been affected the original licence holder/ original undertaker would remain liable for any actions undertaken. The procedure under section 72 MCAA avoids this issue entirely.	

ID	Stakeholder Comment	Applicant Response
24	<p>At the request of the Examiner, the MMO reviewed previous DCOs made, and does understand that this wording is included in other DCOs and understands the precedence the applicant is referring to. However, the MMO also have experience in applying transfer of benefit on constructed projects, and all have to come to the MMO for a variation to the DML to allow the transfer to be made. Whether they have approval from the SoS or not, the transfer is still required to go through the DML variation process with the MMO.</p>	
25	<p>The licence holder, or undertaker as commonly referenced in DCO/DMLs, must submit a request to vary a DML in writing to MMO. All variation requests should be screened in accordance with The Marine Works (EIA) Regulations 2007 (as amended) (MWRs), under provision 88.</p> <p>88. Any change to or extension of development of a description listed in Schedule A1 (other than a change or extension falling within paragraph 31 of that Schedule) where that development is already authorised, executed or in the process of being executed.</p> <p>At this point the MMO would notify the Planning Inspectorate (PINS) and the relevant government department of the proposal to amend the DML. The continued engagement with the relevant departments depends on the level of change requested, so for example an admin change such as a change in licence holder, would only require a notification from the MMO.</p>	
26	<p>It is essential as the regulatory authority in the marine environment that the MMO is always fully aware who has the benefit of marine licence in order that it can carry out its regulatory function and where necessary take enforcement action. The mechanism the applicant is currently proposing for the transfer of a marine licence departs from this established process without clear justification as to why such a departure is necessary or appropriate in the circumstances.</p>	
<p>Leasing of a DML, or Transferring in part</p>		
27	<p>The MMO highlighted that within MCAA there is no provision to lease a marine licence, or to transfer in part. The MMO note that the applicant has agreed to amend this wording under Article 5 and welcome this change. The MMO have no further concerns regarding the leasing or transferring in part of the DMLs.</p>	<p>Noted.</p>

ID	Stakeholder Comment	Applicant Response
5. Responses Deferred from The MMOs Deadline 2 Response (REP2-059)		
ExAs First Written Questions		
28	<p>Q1.12.2.5 Recreational Activity. It is known that recreational boat trips take place from Blakeney to view seals along the North Norfolk Coast. What would the impacts be on recreational boat trips from the Proposed Development? Would there be a cumulative effect upon seals arising from construction/ maintenance vessels for the Proposed Development and the continued recreational tourist boat trips?</p> <p>At deadline 2 The MMO noted the applicants response to this question, and deferred response to this deadline. The MMO have reviewed the applicants response and are satisfied with this.</p>	<p>The Applicant welcomes this position.</p>
Deadline 1 Submission – 13.6 Marine Plan Policy Review (REP1-060)		
29	<p>The MMO has met with the applicant to discuss previous comments raised on the Marine Plan Policy Review (REP1-060) and is aware an updated version is to be submitted to examination. The MMO will provide further comment on this document at the deadline following this submission.</p>	<p>The Applicant notes that a reference to the Schedule of Mitigation and Mitigation Routemap [APP-282] will be added to an updated version of the Marine Plan Policy Review [REP1-060] which it is understood will address the MMO's outstanding concerns with that document.</p>