



The Planning Inspectorate

Our ref:

XA/2025/100467/01

By email

Your ref:

EN020032

morganandmorecambeowfta@planninginspectorate.gov.uk

Date:

20 October 2025

Dear Sir

MORGAN AND MORECAMBE OFFSHORE WINDFARMS TRANSMISSION ASSETS:

DEADLINE 6 – COMMENTS ON SUBMISSIONS RECEIVED BY DEADLINE 5.

We have reviewed relevant submissions received by Deadline 5 and would like to make the following comments:

- [REP5a-019] Draft Development Consent Order (Tracked) - Rev F08 – Protective Provisions Part 9 for the protection of the Environment Agency. Our objection is now withdrawn in principle, subject to confirmation that the agreed amendments have been incorporated in the final DCO submitted at Deadline 6.
- [REP5-087] S_D1_6.6 Environment Agency SoCG - Rev F04 – Agreed
- [REP5-102] S_D3_6 Outline Hydrogeological Risk Assessment for Lytham St Anne's Sand Dunes (Tracked) - Rev F02. We are satisfied with the amendments made and have no further comments.
- [REP5-118] Applicants' Response to Deadline 4 submissions from Statutory Consultees and other organisation: The Environment Agency agrees with the Applicant's response presented in Table 2.6.

We have no further comments regarding any submissions at Deadline 5 or 5a.

Environment Agency position

Our position at Deadline 6 regarding any points that were not closed at Deadline 5.

Ref RR- 0677	Topic	Position at Deadline 2	REP1 -076	Position at Deadline 3	REP2 -056	Position at Deadline 4	Position at Deadline 5	Position at Deadline 6
0677.4	Geology Hydrogeological Risk Assessment required.	This matter is on-going. Hydrogeological risk assessment (HyRA) for all HDD or any other trenchless utility installation methods is proposed to be secured through Requirement 8. We are satisfied with this approach, but for clarity, a hydrogeological risk assessment must be listed under sub-paragraph (2) of Requirement 8 of the dDCO [APP-005]. An outline Hydrogeological risk assessment should be provided in support of the Outline CoCP [APP-193]	076.7	<i>This matter is on-going.</i> [REP2-005] draft DCO - We are satisfied that Hydrogeological risk assessment (HyRA) is now listed under Requirement 8 para (2) (o), The amendment currently specifies Lytham St Annes SSSI, but we request that it also specify the River Ribble crossing for consideration in the outline HyRA. We await the submission of the outline HyRA for review at Deadline 3.	056.7	<i>This matter is on-going.</i> We maintain our position that Requirement 8 para (20) (o) should also include specific mention of the River Ribble crossing. We have provided comments on the draft HyRA submitted at D3 and look forward to reviewing an amended version for D5.	<i>This part of the matter can be closed:</i> We note the amendments to Requirement 8 para (20) (o) and in [REP4-027] oCoCP para 1.8.2.22. <i>This part of the matter is on-going:</i> We have agreed a strategy to ensure the Outline HyRA covers our concerns. We look forward to reviewing the final version of the Outline HyRA to be submitted at D5.	<i>This matter can be closed:</i> We have reviewed the final Outline HyRA and are satisfied that it takes into account all earlier comments. Please see our final response attached here in Appendix A

0677.7	Protective Provisions	This matter is on-going. We are in on-going discussion regarding the final form of the protective provisions.	076.1 1	<i>This matter is on-going.</i> We are in on-going discussion regarding the final form of the protective provisions.	056.9	<i>This matter is on-going.</i> The EA have now provided comment on the Applicant's proposed edits to the EA standard PP wording. We are in on-going discussion and fully expect to agree protective provisions before the end of examination.	<i>This matter is on-going.</i> There are two comments that remain to be resolved. The outstanding points relate to cessation of works where this may cause damage; and the Applicants' ability to review plans of any Agency works which may cause damage to the cables. We are in on-going discussion and expect to close out these points in advance of Deadline 6.	<i>This matter has been agreed in principle.</i> We have agreed final wording and look forward to confirming that this is included in the final DCO submitted at Deadline 6.
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Yours faithfully

[Redacted Signature]

Planning Specialist – National Infrastructure Team

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Appendix A:

Environment Agency comments regarding [REP5-102] Outline Hydrogeological Risk Assessment vF02

Sub topic	Ref	EA submission	Applicants Strategy to update Outline Hydrogeological Risk Assessment at D5	Environment Agency response to Applicant's strategy for D5	EA response to Version F02 at D5
Geological setting	REP4-132 132.2	We request clarification of the ground investigation data used to inform the conceptual model. We require the inclusion of exploratory borehole logs for 'CP+RC' and 'MORGAN_A2_CP01B', including the groundwater observations.	Provide borehole logs from both site investigations	Satisfied	We are pleased to see the inclusion of the requested borehole logs. We agree in principle with the current preliminary hydrogeological conceptual model
	REP4-132 132.3	There is some inconsistency in the summary information provided in the report. The interface between the Blown Sand deposits and underlying Glacial Till at CP+RC is indicated to be different depths in subsections 2.3.3.4 and 2.3.3.12. Furthermore, Figure 2.7, which demonstrates the geological and	Correct the naming inconsistency of the eastern borehole to be LHBH01 Clarify depth of interface between Blown Sand deposits and Glacial Till. Update Figure 2.7 to remove the Middle Sand layer in LHBH01 Include description of Middle Sand deposits and clarify where this was encountered.	Satisfied	Naming inconsistency has been resolved Relative interfaces of Blown Sand, Middle Sand and Glacial Till have been revised in the text and now reflect the as-observed borehole logs better.

		hydrogeological setting of the site, shows the presence of a thick horizon of 'middle sand' deposits immediately underlying blown sand, or peat and alluvium deposits, which are not discussed in the borehole summary.			
Groundwater monitoring	REP4-132 132.4	We do not feel there is sufficient data to support the assumptions made in this report and we request further ground investigation and monitoring be carried out to validate the groundwater conceptual model.	Amend the assumptions in the groundwater conceptual model to reflect the level of uncertainty and the level of risk within the risk assessment to reflect precautionary approach.	Satisfied	We are pleased to see the current uncertainties reflected in the report and note that Section 5.1.1.1 states that the hydrogeological risk assessment will be informed by ground investigation information(s) where necessary and practicable. We are content that these can be carried out post-consent as necessary to inform detailed the detailed HyRA and detailed design. The Environment Agency should be consulted on the scope of these investigations.

<p>REP4-132 132.5</p>	<p>We have concerns that the groundwater monitoring data provided in the Hydrogeological Risk Assessment is from a single borehole location, covers a brief monitoring period and may not be reliable.</p> <ul style="list-style-type: none"> • Insufficient groundwater data to validate the assumptions in the Outline Hydrogeological Risk Assessment ○ Single borehole ○ Installation targets Glacial Till rather than Blown Sands ○ Integrity of the borehole cannot be guaranteed 	<p>Integrity of LHBH01 cannot be guaranteed (already questioned in the OHyRA) and not installed within the Blown Sands. Therefore, Project to commit to undertake installing new boreholes and undertaking monitoring. Scope of investigation to be agreed with the EA.</p>	<p>Satisfied</p>	<p>See response to REP4-132 132.4. Please note that although the proposals are for ground investigation where necessary and practicable, we do not consider the current information to be sufficient to form the basis of the detailed HyRA. We look forward to agreeing the scope of further investigation to inform the detailed HyRA post grant of DCO.</p>
<p>REP4-132 132.6</p>	<p>The report states that shallow groundwater conditions encountered at CP+RC were absent in 'a borehole to the west of the</p>	<p>Include clarification regarding where observations of shallow groundwater conditions were encountered and</p>	<p>Satisfied</p>	<p>The report has been updated. We note that no water strikes are recorded for borehole MORGAN_A2_CP 01B, but that</p>

		<p>SSSI/LNR/BHS'. We require clarity from the Applicant:</p> <ul style="list-style-type: none"> • Which borehole this relates to. • Whether the observations relate to monitoring or water strikes and provide further information. • It is unclear if borehole to the west of the SSSI was dry or if groundwater was encountered at a comparatively greater depth. <p>The Applicant may wish to refer to BGS borehole record SD33SW183, centred at National Grid Reference 331620, 430400. This provides pumping test data dated 1999 from a borehole located at St. Anne's Old Links Golf Club</p>	include information from pumping test.		<p>water was added to aid drilling from 1.2 mbgl to 16 mbgl. This is likely to have masked any water strikes and we consider no conclusions can be made about groundwater presence/absence below 1.2 mbgl in this location. The report should take this source of uncertainty into consideration.</p>
Heat impacts	REP4-132 132.7	<p>We do not agree with the assumptions regarding heat dissipation being 'unlikely' to impact the quality and temperature of groundwater.</p> <ul style="list-style-type: none"> • Groundwater conceptual 	Update the assumptions with further detail from the ground investigations to date and the thermal properties of the underlying geology. Include assumptions from engineers on the anticipated thermal emissions based on other schemes.	<p>The proposal to provide more detail is welcomed. Rather than describing heat dissipation as being 'unlikely' to</p>	<p>The edits to Sections 3.4.3.7 to 3.4.3.13 are welcomed. These are not currently reflected within Table 3-2, which continues to refer to the low conductivity of dry sand as a mitigating factor.</p>

		<p>mode requires further information to provide an accurate baseline</p> <ul style="list-style-type: none"> ○ Ground investigation data ○ Groundwater monitoring data ○ Consider thermal properties of the underlying geology ○ Submit detailed engineering information regarding anticipated thermal emissions from buried HV cables 	<p>Agree with EA that the detailed engineering information regarding levels of heat loss and dissipation through soil can only be provided when final engineering design is available.</p>	<p>impact groundwater, we would suggest that at this stage it is just 'unquantified'.</p>	
	<p>REP4-132</p> <p>132.8</p>	<p>The report then describes the measures taken to manage mutual heating effects from offshore cables, and states that as any heat dissipation in offshore cables is likely to be localised and confined to areas immediately surrounding the</p>	<p>Clarify that paragraphs 3.4.2.9 and 3.4.2.10 should refer to 'onshore cables'.</p> <p>Provide evidence on the low thermal conductivity of dry sand and provide high level quantification of the heat dissipation that is expected based on the thickness of sand present at the</p>	<p>Take into consideration that the sand may be wet, not dry.</p> <p>Groundwater (GW) levels in the existing Airport borehole and data from golf course</p>	<p>We understand that where sections 3.4.3.8, 3.4.3.10 and 3.4.3.11 refer to 'offshore' cables these are situated onshore but considered 'offshore' specification due to being on the seaward side of the TJBs.</p>

		<p>offshore cables a similar situation would be likely for groundwater impacts. We do not agree with this assumption and are of the opinion that there is significantly more potential for heat dissipation in the open offshore environment where surrounding water can circulate freely. Depending on groundwater flow rates and the thermal characteristics of the surrounding soil, the extent of thermal influence for onshore buried cables could be significantly higher.</p>	<p>depth of the buried cable.</p>	<p>abstraction holes suggest that shallow GW is present so sand may be saturated at shallow depth.</p> <p>Will the cables be 'suitably spaced out' within the direct pipe ducts under the SSSI??</p>	
Dewatering	<p>REP4.132</p> <p>132.12</p>	<p>The Applicant should provide anticipated daily dewatering volumes.</p>	<p>Confirm that anticipated dewatering volumes would be provided at detailed design (e.g. confirmed depth of the exit pits and management temporary construction works) and information from the ground investigations (e.g. permeability of the blown sands and depth of the water table)</p>	<p>Satisfied</p>	<p>Satisfied that this information can be provided at detailed design stage in the detailed HyRA.</p>
	<p>REP4.132</p>	<p>The risks to groundwater from contamination</p>	<p>Update OHyRA to include potential contamination from</p>	<p>Satisfied</p>	<p>Satisfied that these risks to the point of</p>

	132.9 and 132.10	associated with Blackpool Airport (historically RAF Squires Gate) during dewatering activities require further assessment to determine that all impacts are considered and mitigated.	Blackpool Airport and cross reference to information within the Environmental Statement. Confirm that contaminant testing would be included as part of the future investigation. Subject to the results of the investigation, a strategy to monitor and manage the contaminants would be agreed with the EA.		dewatering and the golf course abstractions are now referenced in the report and any contaminated groundwater would require assessment to determine management and disposal.
		We remain concerned with the risks presented to the golf course abstractions as the conclusions/outcomes have been understated.	Add information to the OHyRA regarding the golf course abstractions (where available). As a precautionary approach (until site specific information is available), the risk ranking will be updated to Moderate. Include measures to mitigate temporary impacts to the golf course abstraction (e.g. provision of alternative supply during construction).	Satisfied with this precautionary approach. Once site specific information is available, consider whether entry pit construction could limit GW ingress and therefore impact on Golf Course abstractions.	Table 3-2 has been updated accordingly. Satisfied with this position based on the current information.
	REP4-132 132.14	The Applicant should demonstrate that the zone of influence for the maximum excavation depths	Add information on the indicative location of the exit pits and discuss the relative potential impact for the SSSI.	The proposal to provide more information is welcomed. We agree	Sections 3.4.2.2 to 3.4.2.4 now provide rationale to demonstrate that worst-case parameters would not result in a radius of

		will not extend to the Dunes SSSI.		with the likely conclusion. Please provide evidence to support this conclusion, as per that already provided for entry pits.	influence from Exit Pits to the SSSI boundary. Satisfied with this outcome.
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