MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Technical Engagement Plan Appendices Part 2 of 3

September 2024
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Prepared by:

RPS

Prepared for:

Morgan Offshore Wind Project Limited, Morecambe Offshore Windfarm Ltd

Contents

Appendix F: Archaeology and Heritage Engagement Forum (AHEF)

F.1: AHEF – Meeting 1

F.1.1: Meeting Minutes

Appendix A AHEF – Offshore Meeting Minutes

Reference:	EOR0823
Meeting Name:	Morgan and Morecambe OWF: Transmission Assets – Archaeology and Heritage Engagement Forum (AHEF) Meeting 1
Meeting date:	05/06/2023
Meeting location:	MS Teams

Attendees

Name	Initials	Company	Role
[redacted]	SS	RPS	Consultant
[redacted]	LD	RPS	Consultant
[redacted]	SC	RPS	Consultant
[redacted]	MP	Bp/EnBW	Applicant
[redacted]	HK	BP/EnBW	Applicant
[redacted]	CP	Historic England	Stakeholder
[redacted]	AE	MMO	Stakeholder
[redacted]	ALF	MMO	Stakeholder
[redacted]	HR	Flotation Energy	Applicant
[redacted]	TS	Flotation Energy	Applicant

Ref no.	Item	Action
1.	**Agenda** • Introductions • Project overview from bp/EnBW • Roadmap overview from RPS • Presentation of the baseline and data analysis to be contained within the PEIR technical report from RPS • Marine archaeology assessment approach • Discussion, next steps and questions	• None
2.	**Notes**	
3.	• MP delivers Project overview (slides) • Section 35 direction • Key consenting milestones	• None
4.	• SS delivers AHEF offshore roadmap • Remit and inputs • Overview	• None

Ref no.	Item	Action
	– CP: 'Agreement' cannot be an automatic or default position as there are differences in sequence and timing of work and presentation at different stages. – SS: In the roadmap, there is an appendix 'areas of agreement' where these will be logged and resolved through the AHEF. • Indicative Meetings Programme • Ways of working: All communication and indicative timescales – CP: There are so many OWF projects that HE will try to meet indicative timescales for correspondence, but flexibility may be needed. – MP: Please inform when there are specific bottlenecks and we will try to be flexible also.	
5.	• LD presents archaeology baseline • Data acquisition – CP: The RLB shows a configuration of three transmission corridors. Will all three be used or only one? – HK: It represents optionality; potential for alternatives depending on engineering and environmental constraints. – CP: So PEIR will have all three but revised downward at examination? – HK: It's too early to say, it's still in the design process.	• None
6.	• Submerged prehistoric archaeology – CP: What reporting on prehistoric landscape can we expect at PEIR? – LD: We will have the results of the geotech campaign rather than just SBP. – CP: Is there more variation closer inshore? It will be interesting to reconcile that. – MP: We got a smaller vessel to get to the nearshore area as well as on the beach. – CP: Wil the intertidal be included in the onshore AHEF? – LD: The Marine Archaeology reports cover to MLWS, the intertidal will be covered by the onshore archaeology team. – MP: SS can you confirm? – SS: Yes – CP: Will you check the meeting programme and invitees? – SS: Yes.	• SS to check with onshore lead for onshore AHEF meeting programme and invitees re: intertidal palaeolandscape. – Update: SS has spoken to onshore. AHEF KO meeting was on 18/01/2023 and a pre-PEIR meeting TBC. • AE to enquire whether MMO are invited to onshore AHEF for intertidal consultation. – Update: XXX
7.	• CP: A more irregular pattern for an AEZ might be more applicable for a dispersed wreck or debris field. • LD: All AEZs are site-dependent. Some are circular, others are based on the observed pattern. • PEIR wording for AEZ: – 'anomalies have been recommended AEZs based on the size of the anomaly, the extents of any debris, the potential significance of the anomaly, the potential impact of the development and the seabed dynamics within the area. – Dependant of the form of the anomaly, AEZs have either been recommended as a radius' from the centre point of the anomaly or as a distance from the extents. Particularly in the case of shipwrecks, which tend to be longer in length than width, the use of a circle provides unequal protection around the extents. This not only impacts the protection afforded but does not present proportional mitigation.'	• None
8.	• Approach to assessment – CP: What about indirect damage?	• CP to confirm onshore liaison with HE, Local Authority.

Ref no.	Item	Action
	– LD: Indirect impacts identified include sediment distribution and distribution and the alteration of sediment transport regimes and these will be assessed with support from physical processes modelling. – CP: For MDS, how many cable circuits? – HK: 18 circuits in six trenches. – MP: Four trenches for Morgan, two for Morecambe – CP: Are you confident of burial for the cables? What about sandwave clearance in MDS? – LD: We look at site preparation such as sand wave and boulder clearance, and cable burial. – HK: The aim is to bury the cable, yes.	
9.	• CP: What do you expect at landfall? • HK: It is something currently being considered at the design stage. • MP: LD, does RPS have a MDS for landfall re: archaeology? • LD: Marine archaeology is assessed to Mean Low Water Springs (MLWS). Onshore is landward to MLWS, we can check with our onshore colleagues if they have the MDS for this yet. • MP: Assessments are ongoing, no confirmations being made. All options on the table to determine feasibility in engineering and environmental constraints. • HK: Onshore landfall at Lytham St Annes before routing to Penwortham substation. • CP: P[redacted] O[redacted] is HE point of contact for nationally significant assets and best person to advise/liaise with local authorities.	• SS to discuss landfall MDS with onshore archaeology team and to feed back to onshore lead to ensure [redacted] is invited to onshore AHEF calls. – Update: Confirmed [redacted] (PO) was in attendance and is a standing invitee to the onshore archaeology EWG. – Update: Confirmed Onshore extends seaward to MLWS and have MDS that was revisited post-RLB update and post design update.
10.	• CP: What are the Morgan Offshore Booster Station search areas? • HK: It will probably be clarified at ES stage. Morgan is so far offshore that it may need to be boosted before going onshore. Nothing confirmed due to balance of engineering and environment.	• None
11.	• Meeting close • Next meeting TBD	• SC to produce minutes for issue to stakeholders.

F.2: AHEF – Meeting 2

F.2.1: Meeting Minutes

Appendix A AHEF – Offshore Meeting Minutes

Reference:	EOR0823
Meeting Name:	Morgan and Morecambe Transmission Assets AHEF second meeting
Meeting date:	29/02/2024
Meeting location:	MS Teams

Attendees

Name	Initials	Company	Role
[redacted]	SS	RPS	Consultant
[redacted]	LD	RPS	Consultant
[redacted]	SG	RPS	Consultant
[redacted]	HK	BP/EnBW	
[redacted]	ALF	Bp/EnBW	
[redacted]	CP	Historic England	
[redacted]	HR	Flotation Energy	
[redacted]	IM	Flotation Energy	

Ref no.	Item	Action
1.	**Agenda** • Introduductions • Project update (bp) • Post-PEIR project refinements • Marine archaeology Section 42 responses • Discussion and next steps	
2.	**Notes** Meeting chaired by SS; presentation given by HK and LD in line with the above agenda	
3.	• HK presented the project refinements to the PDE, together with consultation period dates and DCO application submission.	None

Ref no.	Item	Action
	• Key Section 42 comments included the design response to OSP and interconnectors sitting in both generation assets and transmission assets DCOs. OSPs removed from transmission to sit wholly within generation assets • Refinement to reduce number of vessel and helicopter movements. • CP query regarding references to the recently published NPS documents (Nov 2023) • HK confirms the updates have been adopted	
4.	• LD presented the Section 42 responses of relevance to marine archaeology. • LD clarified the measures adopted include marine archaeology input to pre-construction surveys. • HK confirmed bp to develop of a singular deposit model across Mona, Morgan Generation Assets, and Morgan and Morecambe Transmission Assets.	
5.	• LD presented the opportunity for HE to comment on proposed draft versions of Outline Written Schemes of Investigation (WSI) prior to next AHEF meeting. • CP explains that there's a wide understanding of what a WSI is and what it represents and there is no clarity across the sector. • LD clarifies the position that it is a starting point as an outline of an approach, with each work package having its own method statement. Furthermore the conversation in this meeting can develop our deliverable. • CP states that Historic England (HE) would like to see specifications for how surveys could elucidate known and unknown assets. • SG reiterates that CPs description is how WSIs have been prepared for other projects • CP confirms that this appears to be, in a positive sense, business as usual but queries if geotechnical work can best be optimised and that information be included in the WSI. • LD reiterates that the WSI is a high level scope. For geotechnical evaluation, the method for a staged approach is presented. LD queries if HE would like the opportunity to provide feedback on a pre-application WSI • CP confirms that they would do so if there was capacity within HE resources.	
6.	• LD presents the opportunity to further discuss and clarify approach to Historic Seascape Characterisation (HSC) • CP recognises the active debate and consideration given to how HSC contributes to assessment of development projects. HSC is about the legacy of the activities which characterise the development area. For the transmission assets, the consideration of HSC will be a narrative – explaining and described the multitude of activities, the legacy of activity, and current operation to allow these to continue or not continue, thereby impacting the character of the area. It should provide context for the known and the risk of the unknown. An example of this is a particular industry that operated in an area which might produce material that is then encountered.	
7.	• SS presents the next steps for the AHEF: meeting minutes and roadmap to be circulated alongside. Next AHEF date TBC.	
8.	• Any other business • CP queries whether there will be a final meeting to span onshore and offshore ahead of DCO application submission. • LD confirms there is no existing plan but if the forum thinks it will be beneficial, it can be organised. • SS agrees a targeted foreshore forum would aid in the assurance of joined-up thinking between domains.	SS to organise a joint onshore/offshore AHEF. Date TBC.
9.	• SS – No other business. SS – There will be a further opportunity to discuss points of feedback. Minutes will be written and shared.	RPS to formalise minutes and share.

F.3: AHEF – Meeting 3

F.3.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Morgan and Morecambe Transmission Assets EOR0823A	**REV. No.** :	Rev02
Minutes of Meeting Subject	:	AHEF Meeting 3 Offshore Archaeology		
		MINUTES OF MEETING		
MEETING DATE	:	20/08/2024		
Az-MEETING LOCATION	:	Microsoft Teams		
RECORDED BY	:	DRB (RPS)		
ISSUED BY	:	DRB (RPS)		

Attendees:

- BP/EnBW
  - [redacted] – HK – Offshore Consent Lead
  - [redacted] – ATo – Onshore Consent Lead
- Morecambe (Flotation Energy)
  - [redacted] – IM – Consent Manager
  - [redacted] – HR – Principle Offshore Consenter
- Historic England (HE)
  - [redacted] – CP – Head of Marine Planning
  - [redacted] – SR – Science Advisor
  - [redacted] – PO – Development Advice Team North West
- Lancashire County Council
  - [redacted] – DM - Stakeholder
- Marine Management Organisation (MMO)
  - [redacted] - AS
  - [redacted] - ALF
- RPSC
  - [redacted] - MR
- RPSE
  - [redacted] - BM
  - [redacted] - SC
  - [redacted] - DRB
  - [redacted] - ATa

Apologies:

Agenda

1. Introductions
2. Project update (bp)
3. Marine Archaeology
4. Intertidal and Onshore Historic Environment
5. Discussion and next steps
6. Stakeholder questions

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting chaired by SC; presentation given by SC and MR in line with the above agenda.		
1.	Slides 5 and 6: HK presented Project Update and Refinements including overview of the schedule with the DCO application submission in late Q3 2024. Changes to offshore elements of the Transmission Assets since PEIR includes the removal of OSPs and interconnector cables from Transmission Assets (now solely within the respective Generation Asset applications), removal of the Morgan Offshore Booster Station, and small amends to the Transmission Assets Order Limits which includes alignment with Morecambe Generation Assets and removal of a small triangular area to the north of the Transmission Assets Order Limits. Slide 7: ATo presented onshore refinements. Refinement of onshore cable route, particularly 400kV grid connection cable and selection of substation sites. HK mentions the project update newsletter with all refinements will be issued to stakeholders and the public later this year.		
2.	Slides 9 and 10: SC recap of geophysical and geotechnical surveys undertaken to date and results of Stage 1 assessment for the Morgan Generation Assets and Mona Projects (Slide 9) and Morecambe Generation Assets (Slide 10). Slide 11: SC presented future work including on-going geotechnical surveys for the Generation Assets and future pre-construction surveys and subsequent availability of data post-consent. CP asked whether the data produced would be uploaded to OASIS, and timescale of work/data becoming available. HK took question about where the data will be post-consent, already an agreement with the Crown Estate. As well as on timeline, post consent. CP asked if need for 'common clause' between Morgan and Morecambe that will support this piece of work. HK replies that the data will be made available in line with leasing requirements. IM suggests that deposit models will be produced and made available at an appropriate time following consent. CP keen to discuss a mechanism that will draw the data together at the end.		
3.	Slide 12: SC presented Marine Archaeology EIA including overview of impacts assessed within the ES. Overall, no significant effects upon Marine Archaeology from the		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Transmission Assets are predicted during the construction, operation and maintenance, or decommissioning phases. It is also concluded that no significant cumulative effects are predicted upon Marine Archaeology from the Transmission Assets alongside other projects/plans. Slide 13: SC presented Marine Archaeology CoT 63. Stating that an outline offshore written scheme of investigation and protocol for archaeological discoveries (Outline Offshore WSI and PAD) has been prepared and submitted with the application for development consent. SC proceeds to outline what this document contains and states that detailed offshore WSI(s) will be developed in accordance with the Outline Offshore WSI and PAD, in consultation with Historic England.		
4.	Slide 15: MR presented Onshore work to date. MR states that the Historic Environment Record (HER) Desk-Based Assessment (DBA) version submitted for the Section 42 consultation is continually being updated, along with refinements of scheme design, specifically the onshore substation locations. The intertidal walkover survey will not be updated except for when the Order Limits need to be reflected in figures. Geoarchaeological DBA – version submitted for Section 42 consultation is also being updated for submission following refinement of design. The geophysical (Magnetometer) survey is also ongoing but has nearly covered all the Transmission Assets Order Limits: Onshore. Slide 16: MR mentions the link between onshore and offshore geotechnical works. Current geoarchaeological work is informing further investigation and being fed into the updated geoarchaeological DBA. Slide 17: MR presented future work, the outline onshore and intertidal WSIs are being prepared and will form part of the DCO application. Further work in the form of trial trenching will be undertaken upon granting of the DCO. A detailed WSI will then set out full programme of works. Slide 18: MR presented Onshore and Intertidal Archaeology EIA, concluding that there is still potential for significant effects on onshore and intertidal heritage and archaeology during construction with potential impact mitigation documented within the Outline Onshore and Intertidal WSI. No cumulative effects from the Transmission Assets alongside other plans/projects are predicted. Slide 19: MR presents key onshore and intertidal archaeology CoTs 13,15,35 and 40. Details how each CoT discussed will be appropriately mitigated, including the development of Detailed Land Management Plan(s), preparation of An Outline Code of Construction Practice (CoCP) and the preparation of onshore and intertidal WSI(s).		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
5.	Slide 20: SC asks for any Stakeholder Questions. CP mentions that under the amended Advisory Service Scheme, HE can recover all costs associated with the Examination Advisory Services. HK took the question and asked that this be discussed outside the meeting, CP agrees.		
6.	Slide 21: SC thanks all attendees and presents next steps, meeting minutes will be distributed two weeks from now (03/09/2024).	**RPS**	30/09/2024
Summary of Actions		**Status**	**Completion Date**
A1.	**RPS will write up meeting minutes and distribute to all attendees in two weeks time.**	**RPS**	**03/09/2024**
A2.			
A3.			
A4.			
Summary of Agreements			
Ag1.			
Ag2.			
Ag3.			

Appendix G: Onshore Ecology

G.1: Onshore Ecology – Meeting 1

G.1.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

MORECAMBE

EnBW bp

Partners in UK offshore wind

Minutes of Meeting Number	:	Transmission Assets Onshore Ecology, Onshore and Intertidal Ornithology EWG Meeting 1	**REV. No.** :	Rev02
Minutes of Meeting Subject	:	Transmission Assets Onshore Ecology, Onshore and Intertidal Ornithology EWG Meeting 1		

MINUTES OF MEETING

MEETING DATE	:	23/03/2023
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

- [redacted]

Apologies:

- [redacted]

Agenda

1. Introductions
2. Overview of the Transmission Assets project
3. Programme
4. Overview of Evidence Plan Process and Expert Working Groups
5. Onshore Route Planning and Site Selection
6. Scoping Opinion and Summary of Impacts
7. Onshore Ecology
8. Onshore and Intertidal Ornithology
9. Next Steps and AOB

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting not recorded.		
1.	**Introduction** (presented by [redacted] Project team and the project introduced. All attendees introduce themselves including their role and organisation. It was noted that organisations will have received the Terms of Reference (ToR) document for the Evidence Plan (EP) (issued to Steering Group attendees). Hopefully these will have been shared with attendees of this meeting, but they can be shared directly if not.		
2.	**Overview of the Transmission Assets (presented by [redacted])** **About the wind farms (presented by [redacted])** Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project, located in the east Irish sea. The Morgan Offshore Wind Project is located approximately 22 km (12 nautical miles (nm)) from the Isle of Man and approximately 36 km (20 nm) from the northwest coast of England (when measured from Mean High Water Springs (MHWS)). The anticipated nominal capacity of the Morgan Offshore Wind Project is 1,500 Megawatts (MW). Morecambe Offshore Windfarm Limited (Morecambe OWL), a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd. (Flotation), is developing the Morecambe Offshore Windfarm. The Morecambe Offshore Windfarm is also located in the east Irish Sea approximately 30 km (16 nm) from the northwest coast of England (when measured from MHWS). The anticipated nominal capacity of the Morecambe Offshore Windfarm is 480 MW. **About the Transmission Assets (presented by [redacted])** In July 2022, the UK Government published the Pathway to 2030 Holistic Network Design documents, which set out the approach to connecting 50 GW of offshore wind to the UK electricity network (National Grid ESO, 2022). The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm would work collaboratively to develop their transmission assets for connecting the wind farms to the National Grid at Penwortham in Lancashire. Morgan OWL and Morecambe OWL (the Applicants) are therefore seeking development consent for transmission assets comprising shared offshore export cable corridors to landfall and shared onshore export cable corridors to onshore substation(s), and onward connection to the National Grid electricity transmission network at Penwortham, Lancashire. These are known as the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to as the Transmission Assets). Both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm fall within the definition of a Nationally Significant Infrastructure Project (NSIP), as they exceed the		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	threshold for an offshore generating station of 100 MW, set under the Planning Act 2008, as amended. They therefore require an application for development consent to be made to the Planning Inspectorate. In relation to the Transmission Assets, the Applicants sought a direction from the Secretary of State under section 35 of the Planning Act to confirm that they should be treated as development for which development consent is required under the Planning Act 2008, as amended. A direction was given on 4 October 2022 and the Applicants are now pursuing a single Development Consent Order (DCO) for the transmission assets for both wind farms. It is anticipated that the Applicants will apply for a DCO which authorises two coordinated but electrically separate sets of transmission works (for example, where each offshore wind farm would have its own transmission cables and substation infrastructure).		
3.	**(Programme and key milestones (presented by [redacted]** **Key Dates** (presented by [redacted] The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants will progress with consenting and both offshore and onshore surveys, noting that the Applicants have already commenced a number of terrestrial ecology surveys and offshore surveys which have fed into the ongoing site selection work. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. As a result we are starting to set up the EWGs whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will afford feedback on the PEIR and project as a whole. We will use this feedback to develop and refine our assessments and refine the project further. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest we are anticipating earliest construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
4.	**Overview of Evidence Plan Process and Expert Working Groups** (presented by [redacted] An overview of the evidence plan process was presented. The presentation slides are attached. Highlights are below: The proposed approach has been developed following the Planning Inspectorate and Defra guidance and recent guidelines		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	produced by Natural England. The EP is a mechanism to agree upfront what information the Applicants need to supply to the Planning inspectorate Examining Authority as part of a DCO application. It allows the Applicant to demonstrate that information provided in the application is appropriate and that the Applicants have endeavoured to agree this with the key parties. The EP process has historically been focused on the Habitats Regulations Assessment (HRA) process. However, in line with recent best practice, the Applicants propose to extend this to include the EIA process, as set out in the EWG slides later in the presentation. There is a separate EP process for the Transmission Assets to those of the Morgan Generation and Morecambe Generation assets. **Roles and responsibilities** The key roles and responsibilities of applicants and stakeholders throughout the EP process are set out in the EPP Terms of Reference (ToR). The EP process is led by the Applicants. The responsibility for updating the EP is with the Applicants, with feedback from the relevant consultees. **Overview of Evidence Plan Steering Group** The EP Steering group oversees the development and monitoring of the Evidence Plan and its progress and meet at key milestones throughout the programme. The first EPP steering group meeting was help in January 2023, and a second meeting is being agreed. **Overview of identified Expert Working Groups** The aim of these EWGs is to discuss and agree (where possible) key elements of the EIA and HRA during the pre-application period. With the overall aim of having a lot of the groundwork completed on the Statements of Common Ground (SoCG), so the Examination is only focussing on the key issues. Slides are provided at back of pack that set out the broad approach to agreement in the EWGs and key areas where we are looking to get agreement on. First EWGs will be established in early 2023. Some of the topics will be combined into one meeting and discussion of the scoping opinion will be undertaken within EWG meetings in an effort for efficiency. After the initial EWGs we are looking to discuss project updates, the ongoing baseline work and survey findings. We are looking to build on the approach and working for Transmission Assets in terms of methodologies etc. The ToR includes a broad approach to the EWG meeting. However, some topics are likely to involve more meetings and consultation than others. This will be topic dependent.		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
5.	**Onshore Route Planning and Site Selection** (Presented by [redacted] An overview of the route planning and site selection process was presented. The project team are currently in the process of route planning and site selection and are refining the PEIR boundary. This refinement is based on environmental data, commercial data and engineering constraints. From these, overarching high level principles are established such as the most direct route, avoiding small land holdings, crossing utilities and roads as close to 90 degrees (perpendicular) as possible. The remaining constraints are then mapped according to a BRAG approach: • Black – potential showstopper to development • Red – high potential to constrain development • Amber – immediate potential to constrain development • Green – low potential to constrain development. The aim for PEIR is to refine: • the indicative proposed onshore cable corridor to c. 120 m. • the indicative temporary compound areas and options. • the indicative temporary access tracks. • The indicative Land Substation (LLS) Zones already established. More elements will be included/considered at the PEIR as more feedback is received that can be fed back into the route planning and site selection process. The plan is to undertake non-statutory consultation in April to June this year and seek further feedback. Landowners will also be consulted in order to establish potential constraints that may not be known. The refinement of the PEIR boundary will continue and the progress will be presented to EWG at the next meeting. This will include outlining the constraints that have been considered and the outcomes of preliminary assessments.		
6.	**Scoping Opinion and Summary of Impacts** (presented by [redacted] SM outlines the commitment to discuss each species group and the scope of their surveys at the EWGs. As part of this process, the initial methodologies will be discussed and the stakeholders will be provided with the slide deck. It is noted that a number of species (such as birds) have complexities and therefore it is proposed to provide stakeholders on the EWG with a methodology pack. These are currently being drafted and will be ready by the end of 31st March. The aim of the EWG (on 23/03/23) is to agree the scope surveys being undertaken with the stakeholders present. **Scoping Opinion** SM ran through all scoping comments, as set out on slides. Key points raised were:	Methodology pack to be provided to EWG	End March or shortly after

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	• It is proposed to scope out habitat loss and fragmentation during operation and maintenance activities from the PEIR on the basis that Transmission assets would require no additional land take after construction is complete and therefore there would be no temporary or permanent habitat loss during operation. PINS agreed to scope this out. • BNG: The Environment Agency also note that BNG will be requested for the project. BNG will be provided with the Environmental Statement as part of the DCO process. The project will consult with these plans via the EPP process. • Natural England also note that the ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List. It is confirmed that this will be done. • SM highlights that Natural England would like the recording of INNS and flag that Rosa rugosa should also be considered. • Natural England advised in scoping comments that the Ribble Estuary should hold be included in the assessment of impacts. This will be adopted for PEIR, ES and HRA. **Summary of Impacts – based on Scoping Opinion comments** <u>Impacts to be Scoped in</u> The impact of temporary and permanent habitat loss. This is scoped in for construction and decommissioning and out for operation. The impact of disturbance. This is scoped in for construction, operation and decommissioning. The impact of habitat fragmentation and species isolation. This is scoped in for construction and decommissioning and out for operation. The impact of pollution caused by accidental spills/ contaminant release. This is scoped in for construction and decommissioning and out for operation. The impact of spreading INNS. This is scoped in for construction and decommissioning and out for operation. <u>Impacts to be scoped out</u> The impact of temporary and permanent habitat loss on protected habitats and species during operation and maintenance of the onshore elements of the Transmission Assets is scoped out of the assessment. The impact of pollution caused by accidental spills/contaminant release on protected habitats and species during operation and		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	maintenance of the onshore elements of the Transmission Assets is scoped out of the assessment. Wish to discuss the following with the EWG: red squirrel, brown hare, dormice, great crested newts (GCN). • Red squirrel populations - this species' known distribution in Lancashire is confined to an area between Crosby and Southport. There is a lack of suitable habitat for this species within the site boundary. It is, therefore, very unlikely that the area will be of significant importance for the species and nor will is it likely to regularly occur within the ecology survey areas. Therefore, it is proposed to scope surveys for this species (and assessment of effects) out of EIA process. • Dormice: one potential area for dormice has been identified to date (the golf course). However, this appears fragmented and separate from any other suitable habitat. Suitable habitat for this species is very limited throughput the survey area. Therefore, it is proposed to scope surveys for this species (and assessment of effects) out of EIA process. • Brown hare: This species will likely occur in the area. However, impacts are not likely to be significant as habitat loss will be temporary. A precautionary approach to work will be adopted to include the presence of an ecological clerk of works during works. Any pits created during works should either be covered or have mammal ramps positioned within them for animals to escape. Therefore, no further surveys are considered necessary and it is proposed to scope surveys for this species (and assessment of effects) out of EIA process. • GCN: Some surveys undertaken in 2022. Of these, eDNA confirmed presence in ponds approximately 1.5km from proposed survey area. The nearest 'likely' positive result was from ponds 1km from the proposed survey area. 28 results were negative. The survey area falls within a suitable area for District Level License (DLL) in Lancashire. Natural England scoping response notes that DLL may be an option. SM flags that there are approx. 474 ponds in the red line boundary. SM would propose that the project would like to join the DLL scheme, rather than continue GCN surveys. Fish and aquatic invertebrates are originally proposed to be scoped out. PINS requested scope back in surveys proposed to be undertaken. [redacted] from Lancashire County Council notes that the LERN results for desktop search have not been submitted to date as they are awaiting a Purchase Order. [redacted] notes this and outlines that to date for desktop work they have been using sites such as MAGIC Map. [redacted] continues and states that assuming the LERN data	EWG attendees to provide comment on this scope/ approach.	Within 2 weeks of receipt of minutes and methodology pack

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	is received asap and that Phase 1 surveys would be appropriate for stakeholders, would it be considered that red squirrel, brown hare and dormice could be scoped out? [redacted] further notes that red squirrel and dormice are not likely to be significant from Lancashire County Council's perspective. Other than need to check against LERN data, no objections made to scoping out of red squirrel, brown hare and dormice. RPS [redacted] to provide a methodology pack, with details of proposed surveys. [redacted] Natural England) noted that there hasn't been a consideration of Marine Conservation Zones as a whole in this presentation. [redacted] notes that there are separate marine ecology EWGs and separate offshore ecology chapters (benthic subtidal and intertidal ecology, fish and shellfish ecology and marine mammals) and that is why they are not considered today (current EWG is onshore ecology and onshore and intertidal ornithology). [redacted] (Ecological Advisor to Local Planning Authority) raises a query regarding the definition of 'temporary' used when discussing effects during the construction period. [redacted] notes that temporary can vary from 9 months to 33 months (the maximum design scenario). Further, it is noted that ideally habitats would be reinstated as and when work is completed in an area, but it is noted by [redacted] that this cannot be committed to at this stage. Hedgerows and temporary hedgerows would be implemented to avoid fragmentation. [redacted] reiterates that habitat loss during construction has been scoped into the assessment.		
7.	**Onshore Ecology (presented by [redacted]** <u>Designated Sites</u> Overview provided of key designated sites within 20km (internationally designated sites) and 10km (nationally designated sites). MAGIC data indicates that Lytham St Annes Local Nature Reserve and any Ancient Woodland fall outside of the red line boundary. [redacted] notes that LERN are currently reviewing Ancient Woodland Inventory with Natural England, and it is possible that this could lead to Ancient Woodland appearing in the red line boundary (as woodland is re-classified). This is due to be completed by late summer 2023. This may not be ready in time for PEIR, but will be considered as appropriate in the ES. [redacted] will stay in contact regarding the update especially if a newly reclassified block of woodland is likely to fall within the red line. <u>Phase 1 Surveys</u>	[redacted] and [redacted] to remain in contact regarding future changes to Ancient Woodland inventory	Ongoing

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	The survey area for Phase 1 habitat surveys and Scoping Protected Species comprises the red line boundary + 150m to 200 /250m. Otters and badgers will be scoped in and signs of other species will be looked for up to 150m from the red line boundary. Due to refinements of the red line boundary, areas beyond the existing red line boundary and buffer have been included. Work is still currently ongoing and to date is 56% complete (and anticipated to be 71% complete by the end of March 23). <u>Great Crested Newts</u> Due to the number of ponds scoped into the assessment, (approx. 474 in the red line boundary and buffer) there would be a significant time constraint if all were to be surveyed. Therefore, it is proposed to seek a DLL approach as discussed above. Maps provided in the slide deck highlight that the red line boundary coincides with areas of green and yellow zone for DLL which makes Transmission Assets eligible for this approach. It is advised to take this approach and discontinue all surveys for newts. Elliot Waltho ((Lead Advisor from Natural England) for generation projects) notes that this will be taken away to their newt specialist and will provide comment by no later than mid-April. **Phase 2 surveys** The following surveys are planned for 2023: • River Habitat Survey - Standard survey methodology to be followed (surveys only where HDD is not committed to). • NVC - Standard survey methodology to be followed. • Hedgerows - Standard survey methodology to be followed. • Reptiles – it is proposed to avoid doing detailed surveys for reptiles along the entire corridor which can be disruptive for landowners. Instead, it is proposed to focus on coastal and areas around the substations using standard measures. No objections, but Elliot Waltho from Natural England will consult Natural England's reptile specialists to confirm approach. Nik Bruce notes that Sand Lizards were re-introduced on the coast and this also needs to be considered. Agreed – included in coastal area. • Hazel Dormouse – proposed to scope out. No objections raised. • Badger – standard survey methodology to be followed. • Otter - standard methodology to be followed and connective features within 100m to be covered. • Bats – following preliminary ground level tree assessment, aerial tree assessment and preliminary roost assessment, it is proposed to scope out walked transects and instead undertake automated surveys (due to the quality of the habitat present). Details would be included in the methodology pack. No objections to the approach were raised.	[redacted] to discuss with newt specialist and respond. [redacted] to consult internally within NE and respond	Early - May Early - May

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	• White Claw Crayfish Standard survey methodology to be followed. • Invertebrates - Standard survey methodology to be followed. • INNS - Standard survey methodology to be followed. • Fish and Eel – these will only be undertaken on appropriate watercourses if HDD is not committed to. [redacted] queried as to whether the plan was to survey any land for inclusion in BNG. [redacted] outlined that the plan is to deliver a net gain within the red line boundary without having to offset offsite. AS adds that there needs to be BNG surveys on land and these will be done. [redacted] (Natural England) flags that the latest BNG metric is being released on 28th March 2023. This is the latest version to be used for the calculations.		
8.	**Onshore and Intertidal Ornithology** (Presented by [redacted] <u>Coastal intertidal ornithology</u> Diurnal and nocturnal waterbird surveys have been taking place two days a month at the proposed landfall site (nocturnal surveys undertaken November 2021 – March 2023). Each survey is undertaken over a 12-hour period in order to capture waterbird distribution and abundance over a full tidal cycle. These have been taking place since September 2021. The aim is capture two years' worth of data. Initial survey results show that species including common scoter, dunlin, sanderling and bar-tailed godwit are present at the landfall location. <u>Estuarine intertidal ornithology</u> Diurnal waterbird surveys have been taking place on the intertidal areas of the Ribble Estuary that overlap with the cable corridor. These were undertaken over a 12-hour period in order to capture waterbird distribution and abundance over a full tidal cycle. These have been taking place since October 2022. Initial survey results show that species including wigeon and lapwing are abundantly present. It was noted that there is a functional link between the Ribble Estuary SPA and waterbirds,		

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	therefore, these surveys were undertaken twice monthly with surveyors driving and walking the route and scanning fields for bird species. Waterbirds Vantage Point surveys Surveys are undertaken twice monthly with the aim of determining the abundance and distribution of field feeding species such as geese, swans and waders. All fields that have been identified within the study area were scanned from viewpoints and the species and number of birds recorded. Surveys were undertaken twice a month and were scheduled to cover all tidal states. It was noted that at Newton Marsh SSSI and Lea Marsh vegetation and hidden creeks created limitations to observing species. Initial results for the Ribble and Alt Estuary recorded that pink-footed goose and whooper swan were present, with Morecambe 2021/2022 indicating black-tailed godwit were also present. For Newton Marsh SSSI, species of wigeon (it was noted that there is a functional link to the estuary for this species) and teal were recorded with Morecambe 2021/2022 data indicating black-tailed godwit were also present. The peak counts of waterbird species recorded will be included in the methodology pack that will be provided to EWG members. Lea Marsh is frequented by waterbird species such as wigeon and lapwing, but these in relatively low numbers. In addition, large numbers of naturalised geese and flocks of mixed-gull frequently use the area. However, while this site is important for waterbirds, it is not considered to be as important as the Ribble and Alt Estuary or Newton Marsh SSSI. [redacted] (Natural England) noted that measures are in place in certain areas (Queensway) to attract birds to certain areas. [redacted] confirms they are aware. Onshore wintering/migrating birds A mixture of PRoWs and privately owned land parcels have been used for the survey, with surveyors aiming to come as close as possible to all areas of habitat in order identify small birds by sight or sound. Most common and widespread specie were identified, however, no waxwing have been recorded to date. Snow bunting have been recorded at Lytham St Annes dunes. In terms of raptors, species such as Marsh Harrier and Peregrine Falcon were recorded. [redacted] (RSPB) highlighted that Newton Marsh is important for breeding of lapwing. [redacted] states they are aware of this. Onshore Breeding Birds		

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	Surveys were undertaken between April and July 2022. Access to all plots of land was not available, but all areas accessible by PRoW were visited four times. Initial findings highlight two barn owl nest locations (assessed in the PEIR and species protection plans in place for the ES), wader species displaying territorial behaviour and bird assemblages of the cable corridor dominated by farmland species.		
9.	**Next Steps and AOB** [redacted] highlights that the best mitigation in sensitive areas is simply to not work during the most sensitive times of year. AS notes this and, once data processed, we will need to look in more detail. Currently, it is hard to map out exactly where we will be likely be working at given times. Some works will need to be carried out at certain times due to weather etc. Appropriate parties will be consulted as and when appropriate. The survey strategy document will have methodologies and areas that we need agreements on included. The ecology team will aim for this document to be out by the end of the month (March). A period of 2 weeks will be provided for comments. This time constraint is needed because if GCN surveys are required, these need to start in mid-April. Ecology team welcome any questions.		
Summary of Actions			
A1.	Ecology team to provide survey methodology document.	**RPS**	End April
A2.	EWG attendees to provide comment on the scope/approach set out in EWG for red squirrel, brown hare, dormice, great crested newts (GCN), reptiles, fish and aquatic invertebrates as discussed under Item 6. All to respond to methodology pack. [redacted] noted that he would consult internally within NE and respond, including with the reptile specialist regarding the proposed survey coverage.	**All EWG attendees (stakeholders)**	Within 2 weeks of issue of pack and EWG minutes
A3.	[redacted] and [redacted] to remain in contact regarding future changes to Ancient Woodland inventory.	[redacted] **and** [redacted]	Ongoing
A4.	Natural England to provide comment from NE newt expert regarding approach to GCN surveys and DLL approach.	[redacted]	Early-May
Summary of Agreements			
Ag1.	We are seeking to agree with EWG members that the following are scoped out: red squirrel, brown hare and dormice.		
Ag2.	We are seeking to agree with EWG members the use of DLL approach for GCN, with no further surveys required.		
Ag3.	We are seeking to agree survey coverage and effort for all species, particularly for reptiles and bats – EWG to review methodology pack.		

G.1.1.1: Response from Natural England regarding meeting 1 minutes

Date: 15 September 2023
Our ref: DAS/UDS A009203 445664
Your ref: Morgan and Morecambe Transmission Assets Onshore Ecology EWG01 Phase 2 Survey Methodologies

[redacted]
RPS/ Energy
Imagination House
Station Road
Chepstow
Monmouthshire
NP16 5PB

cc [redacted]
RPS

Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

[redacted]

BY EMAIL ONLY

Dear [redacted]

Discretionary Advice Service (Charged Advice): UDS A009203
Development proposal: Morgan and Morecambe Offshore Windfarms: Transmission Assets
Consultation: Morgan and Morecambe Transmission Assets Onshore Ecology EWG01 Phase 2 Survey Methodologies

This advice is being provided as part of Natural England's Discretionary Advice Service (DAS) in accordance with the Quotation and Agreement dated 23rd May 2023 to Morgan Offshore Wind Limited & Mona Offshore Wind Limited.

The following advice forms Natural England's response to the Phase 2 Survey Methodologies which were provided on 15th August 2023, following on from the Morgan and Morecambe Transmission Assets Onshore Ecology EWG01 which was attended by Natural England on 23rd March 2023.

Natural England were asked to provide feedback on the following points:

- Methodology, including extent of survey coverage and survey effort;
- Specifically, the approach and scope for reptiles and bats based on the likely impact of the Transmission Assets;

Detailed comments

Natural England has published standing advice for protected species and how these should be considered by development proposals that affect them.

Onshore Ornithology

Natural England agrees with the aim of the surveys to scope in all birds.

Natural England notes that nearby Ramsar sites and SSSIs, which are notified for their bird communities, are not identified in this document. Whilst SPA and Natura sites are key for the Habitats Regulations Assessment, the wider Environmental Impact Assessment would be expected to consider the risks to the wider bird community.

Natural England agrees that the methodology of the surveys is appropriate.
In terms of survey extent, as this is not specifically mentioned, Natural England would advise that the survey extent should ensure coverage for birds in the upper levels of the estuary, and to a lesser extent coastal. This may be achieved through the surveys presented if the terrestrial surveys will include all areas above MHWS or where Estuary surveys extend to the SPA boundary or HAT.

Natural England requests that the applicant confirms that their modified CBC breeding bird survey included appropriate surveys for species that may be expected but which are not well suited to standard CBC detection e.g. breeding waders, raptors and owls. Of particular concern in this study area would be species such as ringed plover, black-tailed godwit, redshank, curlew. Lapwing and oystercatcher are also of high concern but more easily detected. The saltmarshes will largely fall in the area between MHWS and HAT, so it is important to confirm these were covered appropriately. Natural England notes that CBC can be difficult on the marshes because the birds detect observers at range and modify behaviour.

Natural England would expect the farmland surveys to particularly focus on SPA features which may be utilising the terrestrial zone and record additional information on key areas used to inform assessment, for example crop type. It is assumed that the farmland surveys ensured full coverage of the study area consistently using the 'look and see' methodology outlined in 1.3.2.2.

Natural England would find it useful if a single map was presented which showed where the different survey approaches were applied to reassure us that there was completed coverage as Figure 1.1 suggests that the avian survey area was highly limited.

The document also refers to using WeBS data associated with Core High Tide counts (1.4.1.2). However, this does not mention if the BTO have been asked about low tide counts.

Once inland will the assets be above or below ground? Surveys for above ground assets should also consider key flightlines, such as along the Ribble.

Natural England suggests that you may wish to also undertaken autumn passage and spring passage surveys as well. The Ribble & Alt Estuaries SPA/Ramsar has high usage of birds, but also a high turnover of birds during migration, so this would ensure all are captured. We would expect the autumn passage survey to include weekly visits between August to November inclusive, and the spring passage survey to include weekly visits between March to the end of May. These surveys should include different tide states (especially low tide data), taking into account dawn and dusk, to account for birds flying to and from High Tide roost.

Reptiles

A survey should, as a minimum, assess the likely presence of reptiles in the area affected by the development proposal. The scope of the survey should be proportionate to the potential negative effects of the development on reptiles. This may mean surveying for the abundance of reptile habitat and how it's used across the proposal site. You must check if the ecologist is qualified and experienced to carry out surveys for reptiles.

Bats

The following advice is based upon the information within the following documents:

1. Morgan and Morecambe Offshore Wind Farms: Transmission Assets. Phase 2 survey methodologies: Annex C Bats survey methodology

Figures 1, 2 and 3 indicate the parcels which have been subject to phase 1 survey, the parcels that have subsequently been scoped in for trees, buildings, and activity surveys, and the parcels which have not been subject to surveys. No information or criteria has been provided for why other parcels

have not been subject to phase 1 surveys, or reasons for other parcels being scoped out post phase 1 survey. Further details are required to enable Natural England to assess the suitability of the scoping approach. Please also indicate if land is not currently accessible due to access restrictions.

1.2.6 Dusk emergence/dawn re-entry surveys

In section 1.2.6.1 it has been indicated that buildings identified as having low suitability for bats will not be subject to further survey effort. This is not in accordance with best practise, which indicates one presence/absence survey should be conducted between May to August for buildings with low roost suitability. Natural England would recommend that surveys are conducted in accordance with best practise guidance.

1.2.7 Bat activity surveys

Currently it is understood static detector surveys are being proposed at the sub station locations, as these are considered to be the locations with the highest impacts, and that transect surveys are not considered appropriate because of short-term and temporary nature of the impacts. Currently no information has been provided on the proposed impacts of the scheme therefore Natural England cannot comment on the appropriateness of the proposed survey techniques.

Natural England Peat Concerns

From the information provided, we note part of the Onshore Transmission Assets will fall within an area of deep peaty soils, especially around the Fylde area. The location of deep peaty soils can be found here.

Natural England do not support the principle of developing on peat. Peat is an irreplaceable asset that once gone is lost for ever and can never be restored to sequester carbon which is difficult to justify in a climate emergency.

Following the publication of the England Peat Action Plan, Natural England have a better understanding of the impact of carbon loss from damaged and unmanaged peat as well as the opportunity costs of not restoring peat as functioning ecosystem. England's peatlands are our largest terrestrial carbon store and are vital for capturing and storing carbon. They provide a range of other valuable benefits including biodiversity rich ecosystems, improved water quality and natural flood management, the protection of historic environment features and connect people with nature.

We believe peatlands should be protected from inappropriate development for their carbon store and habitat value. Natural England has data on the carbon storage and sequestration of different habitats (NERR094).

We advise any ground works that such as cutting a trench in the peat or drift deposits under, or adjacent to the peat will have impacts both on ground water and water levels within the peat. Peat habitat such as lowland raised bog habitat is very sensitive to modification to water levels, this means these works can impact a wide area of the peat mass.

Natural England has been working with partners to develop restoration methods which effectively restore even the most damaged and dry peat. We can restore the peat so it is able to hold water and sequester carbon if it remains in-situ and undeveloped, and wish to see more peatlands restored through re-wetting.

Where deep peaty soils are shown to be present we consider that they are restorable, Natural England is against any development that could impact the peat, unless information is provided to show that deep peat is not present or the peat is not restorable.

Suitable detailed information must be provided to enable an understanding of the integrity of the deep peat and suitability for restoration that the Onshore Transmission Assets will impact.

For clarification of any points in this letter, please contact me using the details provided below.

Yours sincerely,

[redacted]
Marine and Coastal Lead Adviser
Coast and Marine Team
Cheshire to Lancashire Area Team
[redacted]

☒ The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

[redacted]

Annex 1
European Protected Species

A licence is required in order to carry out any works that involve certain activities such as capturing the animals, disturbance, or damaging or destroying their resting or breeding places. Note that damage or destruction of a breeding site or resting place is an absolute offence and unless the offences can be avoided (e.g. by timing the works appropriately), it should be licensed. In the first instance it is for the developer to decide whether a species licence will be needed. The developer may need to engage specialist advice in making this decision. A licence may be needed to carry out mitigation work as well as for impacts directly connected with a development. Further information can be found in Natural England's 'How to get a licence' publication.

If the application requires planning permission, it is for the local planning authority to consider whether the permission would offend against Article 12(1) of the Habitats Directive, and if so, whether the application would be likely to receive a licence. This should be based on the advice Natural England provides at formal consultation on the likely impacts on favourable conservation status and Natural England's guidance on how the three tests (no alternative solutions, imperative reasons of overriding public interest and maintenance of favourable conservation status) are applied when considering licence applications.

Natural England's pre-submission Screening Service can screen application drafts prior to formal submission, whether or not the relevant planning permission is already in place. Screening will help applicants by making an assessment of whether the draft application is likely to meet licensing requirements, and, if necessary, provide specific guidance on how to address any shortfalls. The advice should help developers and ecological consultants to better manage the risks or costs they may face in having to wait until the formal submission stage after planning permission is secured, or in responding to requests for further information following an initial formal application.

The service will be available for new applications, resubmissions or modifications – depending on customer requirements. More information can be found on Natural England's website.

G.2: Onshore Ecology – Meeting 2

G.2.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Onshore ecology, onshore and intertidal ornithology EWG Meeting 2	**REV. No.** :	Rev02
Minutes of Meeting Subject	:	Transmission Assets Onshore ecology, onshore and intertidal ornithology EWG Meeting 2		

MINUTES OF MEETING

MEETING DATE	:	13/09/2023
Az-MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

[redacted]

Apologies:

[redacted]

Agenda

1. Introductions
2. Programme update
3. Non-statutory consultation
4. Site selection update
5. EWG 1 recap
6. Onshore ecology assessment update
7. Onshore and intertidal ornithology assessment update
8. Next steps

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by [redacted]) Welcome and introductions by all.		

RESTRICTED

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
2.	**Programme update** (presented by [redacted]) The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. As a result we are starting to set up the EWGs whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will afford feedback on the PEIR and project as a whole. The Project will use this feedback to develop and refine assessments and refine the project further. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
3.	**Non-statutory consultation** (presented by [redacted]) A summary of the non-statutory consultation that has taken place was presented. The non-statutory consultation was undertaken during the same period as both generation assets projects (Morgan Offshore Wind Project Generation Assets and Morecambe Offshore Windfarm Generation Assets), between April and June 2023. The link to the consultation website was highlighted, so that interested parties may be able to see further details. This link will be accessible within the slides to be shared alongside the meeting minutes. The second round of non-statutory consultation focussed on the indicative: • landfall and onshore export cable corridor (and associated temporary working areas); • onshore substation search areas; and • 400 kV grid connection search area. The feedback received from the 2023 non-statutory consultation was summarised. This included the key emerging themes from the feedback. This information has fed into site selection updates. No questions were raised.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
4.	**Site-selection update** (presented by [redacted]) A summary of the site-selection process was presented, highlighting the key areas in which the Transmission Assets Red Line Boundary has evolved since the previous EWG for onshore ecology and onshore and intertidal ornithology. The previous red line boundary, presented during the previous EWG for onshore ecology and onshore and intertidal ornithology, was compared with the refined boundary to demonstrate the changes that have been made, resulting from the feedback from consultation and assessments. Focus areas for site selection process included: • the onshore substation statutory consultation area, including constraints for substation zones 2, 3 and 4; • rationale for site selection within substation zone 1; • onshore export cable route options; and • inclusion of alternate option adjacent to the landfall. The refinement of the preferred onshore substation sites was discussed. It was noted that whilst the refinement process is still ongoing, the preference for onshore substations siting is within zone 1, as presented within the slides. No questions were raised.		
5.	**EWG 1 recap** (presented by [redacted]) A summary of the survey methodologies introduced in the previous EWG for onshore ecology and onshore and intertidal ornithology was presented. This included surveys proposed to be scoped out. These methodologies were presented for comment following the previous EWG. Attention was brought to minor amendments proposed within the reptile survey methodology. Feedback on methodology was encouraged. [redacted] stated that comments from Natural England will aim to be provided to the Applicants by 15 September 2023. **POST MEETING NOTE: Comments on the phase 2 survey methodologies were received from the Environment Agency and Natural England following the EWG. The methodologies issued alongside the meeting minutes have been amended to reflect the comments received. Confirmation all points have been addressed within the amended methodologies is requested from the EWG.**	**Action 1: Applicants to issue amended reptile methodology to EWG.** **Action 2: Natural England to provide comments on the proposed survey methodologies**	**15/11/2023** **3-4 weeks following receipt of amended methodologies**
6.	**Onshore ecology assessment update** (presented by [redacted])		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	<u>Baseline data</u> An overview of the phase 1 survey coverage up to PEIR was presented. Justification for the cut-off point of the June 2023 for PEIR and the percentage coverage to be reported in the PEIR was provided. Current access issues limiting survey coverage, including the presence of livestock was highlighted. It was indicated that surveys will continue throughout 2023 and into 2024 as necessary. An overview of the phase 2 surveys completed to date was presented. An overview of the type of bat surveys undertaken to date was presented. Further bat emergence/re-entry surveys will be undertaken in order to improve baseline data. One record of great-crested newt (GCN) was confirmed within the survey area, but no GCN have been found within the Transmission Assets Red Line Boundary. Extensive GCN surveys have not been undertaken as the Project is in the process of applying for the district-level licencing (DLL) scheme, as set out in the phase 2 methodologies. Records of otter have been confirmed around the Lea Marsh area and south of Lytham St Annes. Records of water vole have been confirmed in a similar area. No evidence of white-clawed crayfish (WCC) has been found. Attention was drawn to seasonal restrictions of surveys and access issues, meaning there is a possibility that some surveys will not be completed prior to the writing of the Environmental Statement (ES). No questions were raised regarding survey coverage for PEIR or the species baselines. An update on survey coverage to date was provided, indicating progress made since the cut-off date for data to be included within the PEIR. Improved survey coverage (>70%) was highlighted. Further survey results will be provided in the ES. [redacted] raised whether peat is to be classed as a habitat, in particular regarding biodiversity net gain (BNG). Peat is present around Lytham Moss. [redacted] highlighted that areas of peat have been mapped and raised attention to peat restoration programmes in the wider area, including the Great North Bog project, which the Applicants are considering for ecology enhancement measures. <u>Assessment methodology</u>		

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	An overview of the approach to assessment in the PEIR was provided, including how important ecological features (IEFs) have been classified. Habitats that have the potential to support species have been taken as IEFs, rather than individual species owing to data availability. However, as surveys continue and the baseline evolves, individual features will be included as IEFs. Following PEIR, IEFs will be reviewed. No questions were raised regarding IEFs. An overview of the Maximum Design Scenarios (MDS) selected for the ecological assessment in the PEIR was provided. Detail of the MDS selected can be found in the slides accompanying these meeting minutes. The MDS will be revisited following PEIR as the project design evolves, including refinement of Horizontal Directional Drilling (HDD) (or equivalent trenchless technique) locations. No questions were raised regarding maximum design scenarios. <u>Assessment conclusions in the PEIR</u> The assessment conclusions presented in the PEIR were outlined, with more details available in the slides that accompany these meeting minutes. The five potential impacts assessed in the PEIR were explained, including temporary and permanent habitat loss, habitat disturbance, habitat fragmentation, pollution and spreading invasive non-native species (INNS). The commitments proposed were explained, including the current indicative HDD (or other trenchless technique) locations, the design of the Transmission Assets with regard to avoidance of designated sites, hedgerow and tree removal management, mitigation and management plans alongside the Applicants' commitment to apply for the GCN DLL scheme. The likely effects were summarised. No questions were raised regarding assessment conclusions to be presented in the PEIR. The cumulative effects assessment (CEA) methodology was summarised, including the rationale behind the exclusion of several impacts: habitat fragmentation and species isolation, pollution or spreading INNS. These impacts will be considered in the ES, following further site selection refinement and baseline data collection. Further details are available in the slides that accompany these meeting minutes.		

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	The preliminary results of the cumulative assessment were presented. [redacted] asked for clarification as to how temporary effects within the ecology assessment have been classified, highlighting that impacts lasting more than 12 months are no longer temporary (requiring assessment of removal of habitat with subsequent reinstatement). [redacted] replied that works for the project could last up to 72 months, which is not defined as temporary according to Natural England guidance. However, due to the nature of the activities, not all construction activities will be undertaken for the duration of the works. [redacted] highlighted the Natural England onshore cable guidance, where two years is defined as permanent. [redacted] encouraged further feedback on the classification of temporary and permanent effects to be given at PEIR. A summary of the proposed mitigation measures was presented, which can be found in the slides accompanying these meeting minutes. The mitigation measures proposed include the current indicative HDD (or other trenchless technique) locations, the design of the Transmission Assets with regard to avoidance of designated sites, hedgerow and tree removal management, mitigation and management plans alongside the Applicants' commitment to apply for the GCN district-level licencing (DLL) scheme. [redacted] welcomed feedback on the mitigation measures proposed, in particular the proposed management plans and mitigation plans. It was highlighted that the Transmission Assets have begun the process of applying to the DLL scheme. No questions were raised regarding proposed mitigation measures. <u>Biodiversity net gain (BNG)</u> The proposed approach to BNG was summarised, including the guidance and calculation methodology being used. It was highlighted that the Transmission Assets Red Line Boundary is very large in area, but the scale of impacts to existing habitats relatively limited, in the wider context of the Transmission Assets Red Line Boundary. In that context, the assessment intends to compare the baseline conditions within the area of habitats to be lost or directly impacted with the post-development score within those areas to get an overall net gain score for the Transmission Assets. Three points for discussion regarding BNG were introduced:		

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	1. As highlighted in the previous onshore ecology and onshore and intertidal ornithology EWG, whether there is an update in relation to the Ancient Woodland Inventory, or an indication as to when this could be expected. Those present could not aid with this discussion point. SM will liaise with NB (not present, but present in the previous EWG) regarding this discussion point. 2. Advice regarding additionality was sought. In relation to BNG, additionality was explained to be impacts to other mitigation sites that have been developed. There would therefore be an impact on both the baseline and the mitigation from the other development. [redacted] to provide a shapefile of the Transmission Assets Red Line Boundary to DR so that DR can screen ecological mitigation sites in the wider area. DR to provide feedback on mitigation sites in the wider area, with an indicative timescale of 3-4 weeks following receipt of the shapefile. [redacted] to pass this discussion point onto the terrestrial planning team at Natural England for comment. 3. The assessment intends to compare the baseline conditions within the area of habitats to be lost or directly impacted, with the post-development score within those areas. In order to aid collaboration with local schemes to contribute to strategic programmes, comment on the following was sought: Subject to a suitably worded commitment, is there potential to remove irreplaceable and other habitats from the baseline of the BNG calculations, such as where HDD is proposed? Can the same be assumed for areas not to be impacted or areas intended for mitigation/enhancement? [redacted] agreed with the above broad approach, as long as there is a commitment that habitat not included in the baseline will not be lost. DR indicated that without this approach, an unreasonably high baseline level would result from the calculations. [redacted] highlighted that in the amendment of the Town and Country Planning Act 1990 by the Environment Act 2021, the total red line boundary of a project must be included. However, the Transmission Assets are not assessed under this Act, and SM pointed to examples of infrastructure projects where habitats within the red line boundary of the project have been removed from the BNG baseline. It was also highlighted that BNG guidance for developments that fall under the Planning Act 2008 has not yet been published.	**Action 3: [redacted] to provide a shapefile of the Transmission Assets Red Line Boundary to [redacted] so that [redacted] can screen ecological mitigation sites in the wider area.** **Action 4: [redacted] to provide feedback on mitigation sites in the wider area, following receipt of shapefile from [redacted]** **Action 5: [redacted] to pass proposed BNG outline methodology and discussion points onto the terrestrial planning team at Natural England for comment.** **Action 6: [redacted] to liaise with [redacted] regarding Ancient Woodland Inventory updates.** **Action 7: [redacted] to provide contact details of the**	**15/11/2023** **3-4 weeks following receipt of shapefile** **Timescales dependent on current capacity of terrestrial planning team at Natural England.** **Following EWG.** **Following EWG.**

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	[redacted] invited Natural England and other stakeholders work with the Project in order to agree the principles to BNG assessment, following PEIR. [redacted] to pass the proposed BNG approach and discussion points to the relevant parties within Natural England for comment. [redacted] requested one of the Natural England terrestrial ecology planning team to join the next EWG in order to provide feedback on the proposed BNG assessment. EW to provide contact details of the relevant parties within Natural England.	**relevant parties within Natural England terrestrial ecology team, for inclusion as an invitee for the next EWG (in order to discuss BNG methodology)**	
7.	**Onshore and intertidal ornithology assessment update** (presented by [redacted]) <u>Baseline data</u> An overview of the survey data included in the PEIR was presented. One year of breeding bird surveys, one year of intertidal and one year of wintering bird surveys are included within the PEIR. Other data sources used to inform the baseline for the PEIR include the British Trust for Ornithology (BTO) Wetland Bird Survey (WeBS), Fylde Bird Club data alongside surveys undertaken for recent planning applications in the nearby area. Further surveys to be included in the ES were outlined, with two years of breeding bird and intertidal bird surveys to be undertaken. One year of wintering bird surveys is proposed to be used to inform the ES. The rationale for one year of wintering bird surveys to be used to inform the ES was provided, including the quality of the data collected in one year of surveys and the availability of other data sources for wintering birds. [redacted] invited the EWG to provide their opinions on the proposed survey approach: two years/seasons of breeding bird surveys, two years/seasons of intertidal and waterbird surveys and one year of wintering bird surveys. [redacted] indicated it would depend on the quality and quantity of data undertaken and the findings to date and will not be able to provide an answer until the data has been provided. No other responses were given. The Applicants to issue initial wintering bird survey and desk-based data for review and comment as to whether the data collected for wintering birds to date is sufficient to inform the ES.	**Action 8: Once the data is provided to the EWG, within the PEIR, feedback to be provided by the EWG as to use of one year of wintering bird data.**	**3-4 weeks following receipt of data, to be included within the PEIR.**

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	An overview of the baseline data was provided. It was highlighted that the site specific surveys corroborated the existing data, including WeBS and Fylde bird club. <u>Assessment methodology and conclusions</u> An overview of the Maximum Design Scenarios (MDS) selected for the ornithological assessment in the PEIR was provided. The MDS selected is identical to the ecological assessment aside from the consideration of the onshore export cable route options. Option 2 (south) bisects the Farmland Conservation Area at Queensway, and as such is considered the MDS for the assessment. The assessment conclusions presented in the PEIR were outlined, with more details available in the slides that accompany these meeting minutes. The impacts assessed in the onshore and intertidal ornithology assessment are the same as onshore ecology. Significant moderate adverse affects for waterbirds for temporary and permanent habitat loss and disturbance were highlighted. Negligible or minor adverse effects were reported for all other impacts and IEFs. No comments were raised. The cumulative effects assessment (CEA) methodology was summarised, highlighting the CEA methodology for onshore and intertidal ornithology is the same as the onshore ecology CEA. The preliminary results of the cumulative assessment were presented. Significant moderate adverse effects have been identified. <u>Mitigation measures</u> A summary of the proposed mitigation measures was presented, which can be found in the slides accompanying these meeting minutes. Mitigation measures are the same as those proposed for onshore ecology. DR commented that there is 24 hour working potential for HDD. It was raised whether nocturnal assessments were undertaken, given the sensitivity of bird species to disturbance effects during the night. In particular, vehicle movements and lighting requirements were highlighted regarding mitigation measures. [redacted] responded that nocturnal assessments between November and March were undertaken within the coastal intertidal survey area, with a frequency of two visits per month using thermal cameras. Research was summarised which highlighted that bird species are more susceptible to disturbance at night (in particular noise and light). No		

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	difference in usage was observed between day and night, and assessment conclusions regarding the impact of disturbance have incorporated the 24 hour working potential of HDD.		
8.	**Next steps** (presented by [redacted]) The actions from the previous onshore ecology and onshore and intertidal ornithology were presented. These actions can be found in the slides accompanying these meeting minutes. It was highlighted that brown hare are present within the RLB, but this species would be managed through management plans rather than specific surveys for presence/absence. Surveys have been scoped out for dormouse and red squirred. [redacted] will seek to provide comments from Natural England by 15 September. [redacted] to catch up with NB (not present) regarding future changes to the Ancient Woodland Inventory. It was highlighted that further survey data could be collected to form an addendum to the ES where surveys cannot be completed prior to the ES due to seasonal restrictions. Where this is required, discussion will be undertaken with the EWG in order to agree the approach. [redacted] requests separate focus meetings for BNG meetings in the near future, in order to provide agreement on the overarching methodology for BNG. [redacted] asked whether mitigation will be considered for with regard to peaty soils, if works are to affect this habitat type? [redacted] stated that there are a number of peatland restoration schemes in the surrounding area, including the Great North Bog project, which takes a landscape scale approach to lowland peatland restoration. The Applicants are investigating projects such as these for collaboration opportunities with regard to ecological enhancement. Lowland peat areas are considered irreplaceable habitat, including Lytham Moss (a lowland peat fens). The Great North Bog project extends to this area. However, much of the peatlands here have been converted to arable land. As such, the original habitat has been modified and these areas now support important ornithological populations. The Applicants are also investigating estuarine schemes with Nature North. [redacted] to share the peat strategy for Lancashire following this EWG, showing potential schemes for ecological enhancement and BNG.	**Action 9: [redacted] to share the peat strategy for Lancashire, showing potential schemes for ecological enhancement and BNG.** **Action 10: [redacted] to reach out to Lancashire Wildlife Trust regarding the peatland restoration schemes of Heysham Moss and Winmarligh Moss.**	**Alongside these meeting minutes and slide deck** **Following the EWG**

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	[redacted] recommended speaking to Lancashire Wildlife Trust, who have the following peatland restoration projects in the local area: • Heysham Moss; and • Winmarligh Moss. [redacted] to reach out to Lancashire Wildlife Trust regarding these peatland restoration schemes. [redacted] highlighted that the quality of the peat in the area is variable, with much of the peat eroded. Peat condition assessments would be recommended to microsite and avoid any impacts. LL agreed that the mitigation hierarchy should be considered with regard to peat impacts, with avoidance of impacts being the primary step. [redacted] highlighted that in arable areas, peat stores are likely to be eroded, but ditches and field margins may have higher levels of peat. It was indicated that the ecology assessment at the ES stage is likely to include an assessment of peat habitats. [redacted] asked for clarification of the method of HDD under the sand dunes, and whether this method will completely bypass any impacts on the sand dunes. [redacted] provided an overview of the process of bringing the offshore export cables onshore. Within the intertidal area, there will an area of open cut trenching, in order to meet the HDD punch out point prior to the sand dunes. HDD will take place under Lytham St Annes Dunes SSSI with a 15 m either site of the SSSI. However, exact locations of the HDD punch up points and trenching in the intertidal area is not yet confirmed. A summary of the trenching and trenchless methodologies around the landfall and Lytham St Annes Dunes will be provided at the next EWG. [redacted] highlighted the Christmas Tree Project and other Environment Agency and Ribble Rivers Trust projects in the surrounding area. [redacted] indicated that the project team have been in contact with the Environmental Agency, including the highlighted projects. The Applicants will re-issue reptile survey note. Meeting minutes and slide deck will be shared, with comments and responses returned within two weeks of issue.	**Action 11: Applicants to provide a summary of the trenching and trenchless methodologies around the landfall at the next EWG.** **Action 12: Applicants to re-issue reptile survey note with amendments.**	**At the following onshore ecology and onshore and intertidal ornithology EWG** **15/11/2023**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Summary of Actions		**Status**	**Completion Date**
A1.	**Action: Applicants to issue amended reptile methodology to EWG.**	**COMPLETE**	**15/11/2023**
A2.	**Action: Natural England to provide comments on the proposed survey methodologies**	**COMPLETE**	**18/09/2023**
A3.	**Action: [redacted] to provide a shapefile of the Transmission Assets Red Line Boundary to [redacted] so that [redacted] can screen ecological mitigation sites in the wider area.**	**COMPLETE**	**15/11/2023**
A4.	**Action: [redacted] to provide feedback on mitigation sites in the wider area, following receipt of shapefile from [redacted]**	**ONGOING**	**3-4 weeks following receipt of shapefile.**
A5.	**Action: [redacted] to pass proposed BNG outline methodology and discussion points onto the terrestrial planning team at Natural England for comment.**	**ONGOING**	**TBC**
A6.	**Action: [redacted] to liaise with [redacted] regarding Ancient Woodland Inventory updates.**	**ONGOING**	**TBC**
A7.	**Action: [redacted] to provide contact details of the relevant parties within Natural England terrestrial ecology team, for inclusion as an invitee for the next EWG (in order to discuss BNG methodology)**	**ONGOING**	**3-4 weeks following receipt of minutes.**
A8.	**Action: Once the data is provided to the EWG, within the PEIR, feedback to be provided by the EWG as to use of one year of wintering bird data. This will be included within the agreements log once confirmed.**	**ONGOING**	**3-4 weeks following receipt of data, to be included within the PEIR.**
A9.	**Action: [redacted] to share the peat strategy for Lancashire, showing potential schemes for ecological enhancement and BNG.**	**COMPLETE**	**14/10/2023**
A10.	**Action: [redacted] to reach out to Lancashire Wildlife Trust regarding the peatland restoration schemes of Heysham Moss and Winmarligh Moss.**	**ONGOING**	**TBC**
A11.	**Action: Applicants to provide a summary of the trenching and trenchless methodologies around the landfall at the next EWG.**	**ONGOING**	**TBC**
A12.	**Action: Applicants to re-issue reptile survey note with amendments**	**COMPLETE**	**15/11/2023**
Summary of Agreements			
No agreements to note.			

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G.3: Onshore Ecology – Meeting 3

G.3.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Onshore ecology BNG EWG Meeting 1	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Transmission Assets Onshore ecology BNG EWG Meeting 1		

MINUTES OF MEETING

MEETING DATE	:	18/12/2023
Az-MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

[redacted]

Apologies:

[redacted]

Agenda(LG)

1. Introductions.
2. Project update.
3. Trenchless techniques.
4. Biodiversity benefit:
   - overview;
   - methodology;
   - baseline; and
   - existing schemes and projects for collaboration.
5. AOB/Next steps

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by [redacted] Welcome and introductions by all. Attendees captured in the list at the beginning of the minutes.		
2.	**Project update** (presented by [redacted] <u>Project Overview</u> [redacted] presented a brief overview of the project outlining that this is a joint venture for the transmission assets connecting to the grid at Penwortham. A high-level summary of the route is presented with an emphasis on the two projects being electrically separate hence the need to two separate substations. Currently in the process of refining the routes based on PEIR consultation. The road option in Blackpool was summarised also. <u>Programme</u> The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants have progressed with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. The Applicants published the Preliminary Environmental Information Report (PEIR) in autumn 2023 (12 October), with formal consultation undertaken from 12 October to 23 November. The statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) allowed feedback to be sought on the PEIR and project as a whole. The Project is using this feedback to develop assessments and refine the project further. Currently, the Applicants are reviewing all feedback received on the statutory consultation. Work has now begun on preparing the Environmental Statement and the Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029. <u>Areas for biodiversity benefit</u> [redacted] outlined that the areas for potential biodiversity net gain were presented at PEIR (see slides for the figure). LM added that the areas that were identified for PEIR were done so through a combination of phase 1 habitat data/surveys that have been undertaken and arial imagery (where phase 1 data was not available. Engagement was also undertaken with identified landowners to see if BNG is something that		

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	they would be willing to engage with later down the line following the provision of additional information regarding what the project wants to do on their land.		
3.	**Trenchless Techniques** (presented by [redacted] notes that a lot of feedback was received following the PEIR highlighting that information regarding Horizontal Directional Drilling (HDD) and other trenchless techniques was limited. Therefore, it was considered beneficial to outline how HDD and other trenchless techniques would work and why the project is using them. [redacted] discusses that one of the main ways that you can limit the impact on environmental receptors is to lay the cable via trenchless techniques such as HDD. HDD includes a horizontal drilling rig and an entry and exit point. The rig enters the ground at the entry point and initially drills a pilot hole (smaller than the diameter of the pipe) to ensure that the desired profile is achieved underneath the sensitive receptor. The hole is filled with drilling fluid (usually bentonite) to help with the pressure and ensure the hole does not collapse. The pilot hole remains open at each end. The hole is then systematically increased in diameter through the use of larger circulating reamers (drill heads). The excavated material is pushed back up through the exit point or entry point depending on which direction you are drilling. Once the hole is reamed to the desired diameter (usually 1.5 times the diameter of the pipe or cable), the cable is assembled and pulled into the hole. [redacted] raises a query from the Environment Agency regarding the minimum 2 m depth proposed for going underneath Main Rivers and where the 2 m value had come from. Further, [redacted] notes that the Environment Agency assumes that further studies on a site by site basis to determine the depths, geologies and potential for contaminated ground would be undertaken. [redacted] notes that ground investigations (GI) campaign is being looked at for the start of next year and will look at areas of contamination and also target areas where HDD (or other trenchless techniques) are proposed to ensure that the geology of each location is understood in order to undertake the predicted drill profile.		
4.	**Biodiversity Net Gain (BNG) (presented by** [redacted] <u>Policy</u> [redacted] outlines the statutory policy behind BNG. The Environment Act 2021 included provisions applying certain BNG requirements to the nationally significant infrastructure projects regime (projects consented under the Development Consent Order (DCO) process (NB: The Transmission Assets is not a nationally significant infrastructure project (NSIP), but should be treated as development for which a DCO is required). The Town and Country Planning Act mandatory net gain is expected to come into force in January next year.		

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	The Government have noted that they intend to apply it to NSIPs or other projects that are consented via the DCO process in November 2025, with the project specific level of requirements detailed within a BNG statement. As noted above, this project is not an NSIP, but is project for which a DCO is required so would be captured by mandatory net gain for NSIPs if the application was submitted after the date that it came into force. The Government have further indicated that they expect the BNG regime for DCO applications to be similar to what is set to come into force for Town and Country Planning Act applications, therefore, the biodiversity net gain for NSIPs would be at 10%. In the case of the Transmission Assets project, the DCO application will go in Q3 next year, therefore, it will not be captured by the statutory BNG process, but the Government have indicated that projects can undertake BNG voluntarily. The project is looking at providing a Biodiversity Benefit Statement No questions raised. <u>Principles</u> [redacted] outlines that the approach to BNG is in accordance with British Standard: BS 8683 – Process for Designing and Implementing Biodiversity Net Gain. Initial calculations have been undertaken using the latest 'Statutory Biodiversity Metric' published in November 2023 and it is proposed to continue using this metric for the duration of the project. MF adds that the S42 response from Natural England highlighted that the Natural England Environmental Benefits from Nature Tool could be used as well, however, this is not considered as part of this presentation, but notes that the project is aware of it. [redacted] discusses the proposed study area utilised to inform the BNG. The focus of this BNG work is terrestrial habitats only (mean high water and above). The Transmission Assets Redline Boundary for the PEIR was deliberately much wider than it needed to be for the Transmission Assets alone so that it could capture land that might be required for BNG and other ecological mitigation. MF notes that it is not appropriate to use that as the baseline for the BNG calculation, therefore, the centre of the study area (denoted in pink on the figure on the slides) is being looked at as the baseline condition for working out the baseline BNG value. From the substations onwards, the 400 kV cable route has been refined further to a width of 100 m (not shown on the figure) and runs east from the substations, under the River Ribble and to the National Grid Penwortham Substation. There are currently options for the substation locations and each of these has been looked at to consider what impact		

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	they would have to the overall baseline. The baseline is considered as the land required for the construction of the cables, associated compounds and the substations (permanent land take and temporary construction compounds). Trenchless techniques are being utilised under key watercourses and key areas of habitat. There is not a high amount of high value habitat along the route, but the project is avoiding this by using trenchless techniques. The areas that are being avoided through trenchless techniques are excluded from consideration in the baseline. The initial approach is a worst case scenario. As noted earlier, it is not appropriate to use the PEIR Transmission Assets Redline Boundary for BNG. Therefore, the calculations have been based on the BNG baseline only to provide an overall net gain score. To confirm, the following areas are omitted from the baseline: • areas where Horizontal Directional Drilling (HDD) (or other trenchless techniques) are proposed. • areas which are included in the Transmission Assets Red Line Boundary for mitigation (such as for bird mitigation including visitor pressure management to increase the capacity for birds displaced at landfall). • Irreplaceable habitats (key area is Lytham St Annes Dunes SSSI and we are looking to HDD (or other trenchless techniques) under these). [redacted] raises a query regarding where HDD is proposed, what are the impacts of the temporary works associated with the HDD such as compounds and setback that would be required for the HDD entry and exit, and whether it is appropriate for those areas to be included. In addition, how long will the temporary work continue for and whether it is appropriate for that to be included as well. [redacted] notes that the GI works to determine start and end points of HDD (or other trenchless techniques) are still ongoing. The intention will be to situate the works so that there are no temporary or permanent impacts on the sand dunes (for example). In that case there would be no requirement to include them in the baseline. If there are compounds required outside of the dune system but above mean high water, then those would be included in the baseline. The corridor being worked to includes various compound locations throughout the route and these are also included in the baseline. [redacted] added that as part of the work being undertaken on the crossing schedule which identifies the various HDD locations, HDD drill lengths are included and the exit and entry pits are outside of this length and are therefore included in the area which is identified for the BNG baseline with the actual drill length below ground excluded.		

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	[redacted] raises a query regarding the drill lengths generally across the study area. [redacted] notes that the lengths vary significantly. For example going under a road would just be the width of the road plus the hedgerows on either side, whereas other areas such as below wetland habitat are much longer. Engineers prefer lengths to be less than 500 m as above that length larger equipment is required, but it is possible to drill under quite large distances should it be required. The longest sections for the Transmission Assets would be under the River Ribble and Blackpool Airport (separate drilling operations). [redacted] notes that there are other trenchless techniques available, so if HDD wouldn't work in an area, techniques such as micro-tunnelling can also be utilised and any other trenchless techniques that are being considered will be included in the project description of the Environmental Statement. [redacted] notes that until the ground investigations have been completed, it is not known whether the geology would be appropriate for HDD and therefore it would be useful to provide other techniques alongside HDD. [redacted] asks whether the plan is to undertake and complete the ground investigations prior to the application being submitted. [redacted] clarifies that this is plan. [redacted] picks up on the point regarding the airport and that the cable route goes right through this. The current assumption being worked to is that there would be an open cut cable route through the airfield. There may be other trenchless techniques proposed for some or all of this area, but currently the route is chosen to go through the grassland via open cut trenching. [redacted] raises a query regarding irreplaceable habitats. Within the statutory metric user guidance, irreplaceable habitats are supposed to be included within the BNG baseline metric spreadsheet even if they are not being impacted. Seeking clarification of approach from project team. [redacted] notes that we are not undertaking statutory BNG and this is being offered as a voluntary approach. The issue with including irreplaceable habitat in a project like this where most of the impacts are temporary is one of proportionality. The calculations are already challenging due to the size of the baseline in terms of units and if you include irreplaceable habitat it would then be included in the baseline as part of the target that the project needs to achieve even though those habitats are not affected. The approach is therefore considerate to be proportionate by not including irreplaceable habitats. [redacted] continues. Case study examples from Natural England for when BNG first became mandatory noted that if you could reinstate/restore habitats to the pre-existing types within two years, they could be treated as retained within the		

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	metric and not lost. With some exceptions with regard to the cable route, there is a situation where it can't be guaranteed that reinstatement could be completed within two years. [redacted] adds that maximum construction scenario is 66 months (sequential) and that this is a worst-case and we will only take land when required for construction works and not from the start of the project. [redacted] continues by noting that for the BNG assessment, it is assumed that land is not retained (as a worst case scenario). The same is the case for the temporary haul roads as well. <u>Early Calculations</u> [redacted] outlines that the calculations are based on having at 66 month construction phase along the cable corridor due to the sequential scenario. In addition, they are based on the onshore infrastructure area only with the only permanent above ground infrastructure being the two substations. Work has been done to minimise bot the impact and biodiversity value of the baseline. Due to what is being trenched through designated as intensively managed pasture grassland which came out as other neutral grassland (moderate or good condition) in BNG terms, it is not possible to restore this back to its original condition in two years. Taking these points into consideration, in order to deliver 10% BNG for the worst case scenario, there would be a requirement for c.100 ha of arable land to be taken out of production. This is a problem with regard to viability of the farms even with landowner agreement. [redacted] notes that the permanent above ground infrastructure (substations) is around 20 ha. The temporary and permanent areas (without including mitigation) is giving the 100 ha requirement. [redacted] add that because this is two sets of cables treated as one project, it cannot be guaranteed that land would be restored within the two year time period and it therefore cannot be treated as retained. As a result, the duration of the temporary works is leading to the large area of land take needed to achieve 10% net gain. This brings into question about how practicable it is to deliver 10% gain across the whole project. Through a consultation exercise, some landowners did indicate that in principle they may be happy to accommodate some BNG work on their land. But when land take of this size is considered, it might render some land holdings unviable and may not lead to landowner agreements. Looking at land take and land use change on the scale proposed, it could lead to a significant impact in other areas such as socio-economics. [redacted] continues. Discussions have been undertaken regarding Compulsory Purchase Orders (CPO), but as this BNG work is not statutory, that makes CPO challenging. Therefore, it is considered that it is not feasible to deliver BNG on the scale		

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	proposed (c. 100 ha for 10% gain).MF outlines that they have started to look at different options other than 10% of the BNG baseline for the cable route and compounds. Options include various local initiatives that the project could collaborate with to deliver some offsite postive benefits. In terms of the BNG metric, it is proposed to just look at the permanent substation areas and ensure these (permanent) issues are addressed in BNG terms. Engagement is starting with landowners where they are open to doing something (on a smaller scale than the aforementioned 100 ha) on their land. In addition, landowners are being consulted on mitigation for birds, predominantly sugar beet planting for pink footed geese (this is neutral in BNG terms). There is also habitat creation proposed to mitigate the landfall impacts and there is the opportunity to work with these landowners to do things that would also have a BNG benefit on top of the mitigation. Feedback from the S42 consultation, centred around the viability of some of the land holdings were we to deliver on the 100 ha scale. [redacted] raises a query regarding what engagement with other stakeholders has been undertaken to date, specifically relating to options for offsite contributions. What conversations have occurred to date with landowners and other stakeholders (such as the wildlife trust etc)? LM, notes that there is a slide on this further in the presentation. The project engaged with the some of the other schemes a while ago and it is now intended to pick this up again now we have more information on the project and the BNG requirement. <u>Mitigation, enhancement and BNG</u> [redacted] outlines that the blue areas show areas for BNG and mitigation (on the slide). These areas have been identified through consultations with landowners (earlier in the process) where they had indicated that they would be open to doing work on their land. The hashed areas are areas for bird mitigation and other protected species. The hashed areas to the east of the scheme are the areas for sugar beat planting as previously noted. There are other areas identified where there are potential options for BNG where there would not be a protected species requirement as well. There is in theory a good amount of land potentially available for onsite benefit. NPS EN5 highlights habitat connectivity. Where we can site the areas for BNG to improve habitat connectivity across an intensively farmed arable landscape we will. LG raises an assumption that where the project is looking at BNG and mitigation together, additionality rules have been applied and that BNG would need to be on top of any mitigation. [redacted] discusses that the guidelines state you can use the land for mitigation, but the BNG needs to be 10% on top of the		

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	mitigation being proposed - this exercise still needs to be undertaken for the project, but it will be considered. There is the option to go the open market for units, but the scale of units required would take up a lot of the available units that other developments could use. [redacted] continues by noting that the project is not yet in position with mitigation to provide any more information as the potential desired areas for BNG and have only been identified at this stage. LG raises a further point as to whether discussions have been held with LPAs regarding the potential to deliver anything on their land as many LPAs have been undertaking assessments of land and identified areas where they could have uplift of value. [redacted] notes that they have been in touch with most LPAs but not all. This point is discussed in later slides. <u>Collaboration (presented by [redacted]</u> [redacted] discusses that originally the scheme was looking at important conservation initiatives rather than net gain initiatives and how the project could add value at a community level. Key schemes and the projects aspirations for working with each scheme include: • The Fylde Sand Dunes Project (opportunities for repairing and restoring the dunes, planting dune grasses and creating dune slacks to increase. diversity of wildlife). • Nature North – The Great North Bog (opportunities for collaboration to purchase, restore and commitment to maintain for monitoring). • Lancashire Wildlife Trust Peat Restoration (landscape-scale approach to upland peatland restoration – investable propositions). • South Ribble Council (Habitat creation and habitat regeneration projects – e.g. Wrea Green Wetland creation). With regard to the BNG metric, these schemes would have limited input in terms of net gain. The project would take steer from each initiative about how they could help bring a benefit to them. The project wants good community engagement and outcomes for biodiversity, conservation and enhancement as a whole. Adding value to meaningful conservation projects is key. Nature North -The Great North Bog and the Lancashire Wildlife Trust Peat Restoration schemes are both key to work with. These are landscape led approaches to upland peat restoration and the project is only dealing with lowland peat in the Transmission Assets Redline Boundary. A lot of the lowland peat has been modified to agricultural land. These are highly modified soils, and the main options would be to find willing landowners who would be happy to turn some of		

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	this back to peat or for the scheme to contribute at a more strategic level in terms of other projects. South Ribble Council (detailed discussions have been held) are looking at their habitat regeneration project. They have masterplan for their open spaces and a lot of what they are trying to achieve is about opening up nature space and access. It doesn't deliver on the metric value, but delivers community benefit such as creating bird hides. LG notes that for the strategic significance in the metric, does the team know which plans have been identified as contributing to strategic significance as that can be a way of increasing the biodiversity units by linking with green infrastructure. [redacted] highlights that the ecological network policy has been looked at with regard to some of the land parcels within the redline boundary and how those parcels are connected to the Lancashire ecological networks as this adds another layer of value within the scheme. There is an area around Penwortham that has a lot of connectivity. There are community working groups also present such as the Penwortham Nature Society. The ecological networks were also taken into account when looking at the site selection for the substations. Looking at South Ribble Council, a lot of their aspirations are centred around opening up cycle routes and bird hides. [redacted] notes that this can all be used for strategic significance as well in the metric, especially if they have a green infrastructure plan. [redacted] flagged the Winmarleigh and Cockerham Moss, Winmarleigh Carbon Farm and Winmarleigh Lancashire Peatlands Project. These schemes would fit very well with the project. SM agreed with the identified schemes and noted that only the key stakeholders have been identified that the project would like to collaborate with at this stage, but we are aware of the other schemes. [redacted] adds that it is very much the intention to include other schemes and invites attendees to send any schemes through as a list is being collated. There will also be an outline enhancement plan in addition to the biodiversity benefit statement. [redacted] adds that Lancashire Wildlife Trust are aware of other projects that specifically relate to creating credits for BNG and would be worth the project considering collaboration with. [redacted] notes that some of these schemes are less developed in terms of trading with the BNG metric. The project will seek to work with them, but they may not have credit system in place and may have to fall under enhancement potential and not BNG. [redacted] asks [redacted] to send through any other schemes (invite goes out to all attendees). [redacted] asks the project team whether they have you tried [redacted] (Lancashire Wildlife Trust). She works a lot on the peat restoration projects. In addition [redacted] notes that for BNG it		

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	is easier to achieve uplift through enhancement rather than creation. With regard to other schemes, local nature recovery strategy is being prepared but won't be in place for this project (Match 2025 at the earliest). [redacted] continues by outlining other schemes that have been considered including Queensway Farmland Conservation Area, Ribble Rivers Trust, RSPB Magefence and RSPB Hesketh Out Marsh. Canal and River Trust made some very good suggestions for key areas and areas they would like to collaborate on. [redacted] adds that the Megafence is Natural England and RSPB proposal not just RSPB. [redacted] notes that with respect to ornithology, a meeting has been requested with Fylde Bird Club in the first week of January to go through some of their points raised through the S42 process. [redacted] asks for additional information on the Megafence scheme. [redacted] outlines that it is a scheme to put in 9 km fence between River Douglas and Crossens Outfall. It is an anti-predator fence to stop foxes getting on the salt marsh to protect species and enhance breeding opportunities. Also includes enhancement for public access. The Environment Agency are aware of the project as licences are needed as it is adjacent to the flood bank and one point goes over it.	**Action 1: Attendees invited to send through all schemes of relevance that the project could look to collaborate with.**	**TBC**
5.	**AOB/next steps (presented by [redacted]** [redacted] thanks everyone for attending and notes meeting minutes will be typed up and circulated. The next EWG will be in Q1 2024 and focus on S42 comments and an update on site selection, survey coverage and surveys that have been undertaken post-PEIR. [redacted] highlights that we are working on current timeline for submission and the BNG situation is complex for buried cables for infrastructure, unlike on road schemes where there was options for verge planting within the redline. For this project, the presumption is that the land is returned to the landowner and not retained. Therefore, the project is ending up with a 5:1 ratio which is deprotonate and is an area that Natural England may need to consider this when coming up with the guidance for NSIPs related to buried cables and pipelines as it is very difficult to achieve a 10% net gain. If attendees could provide feedback as soon as possible with regard to our proposal to apply BNG for this project to the permanent impact areas (and not temporary). In terms of the principles and in order for the redline boundary to be refined and achieve a scheme freeze, the project needs Natural England (and other stakeholders) to be comfortable with this approach. A response would be needed in January. [redacted] will consult a colleagues to get further opinion. [redacted] requests that the approach and justification discussed is outlined in a document. [redacted] notes that the approach,	**Action 2: Ecology team to pull together technical note outlining approach the Applicants to distribute to attendees.**	**COP 22/12/2023**

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	justifications and challenges will be added to a technical note for distribution. [redacted] continues that this is a reasonable approach for this project and any project similar to this is likely to run into the same issues (such as no onsite space available).	**Action 3: Attendees (specifically Natural England) to feedback on the approach to apply 10% BNG to permanent areas only and confirm they are happy with approach.**	**January 2024**
Summary of Actions		**Status**	**Completion Date**
A1.	**Attendees invited to send through all schemes of relevance that the project could look to collaborate with**	**ONGOING**	**TBC**

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A2.	**Ecology team to pull together technical note outlining approach the Applicants to distribute to attendees.**	**ONGOING**	**22/12/2023**
A3.	**Attendees (specifically Natural England) to feedback on the approach to apply 10% BNG to permanent areas only and confirm they are happy with approach.**	**ONGOING**	**January 2024**
Summary of Agreements			
No agreements to note.			

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G.4: Onshore Ecology – Meeting 4

G.4.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Onshore ecology, onshore and intertidal ornithology EWG Meeting 4	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Transmission Assets Onshore ecology, onshore and intertidal ornithology EWG Meeting 4		

MINUTES OF MEETING

MEETING DATE	:	26/01/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	A White (RPS)
ISSUED BY	:	A White (RPS)

Attendees:

- Laura Martin – bp (LMar)
- Wendy Dodds – bp (WD)
- Ian Mackay – Flotation Energy (IM)
- Leo Asuelimen – Flotation Energy (LA)
- Alice White – RPS (AWhi)
- Ben Priest – RPS (BP)
- Amy Robinson – RPS (AR)
- Matt Fasham – RPS (MF)
- Jon Riley – RPS (JR)
- Andy Mather – RPS (AMa)
- Emma Marston – Greater Manchester Ecology Unit (EM)
- Liz Locke – Environment Agency, National Infrastructure Team (LL)
- Andrew Stell – Fylde Borough Council, Development Manager (AS)
- Megan Williams – Environment Agency, Biodiversity Officer (MW)
- Elliot Waltho – Natural England, Lead Advisor for Morecambe and Morgan (EW)
- Alice Watson - Natural England, Onshore Assets Lead (AWat)

Apologies:

- Steph Murphy – RPS (SM)
- Lucas Mander – RPS (LMan)
- Derek Richardson – Tameside, Ecological Advisor to Local Planning Authorities (DR)
- Phil Cousins – Preston City Council, Development manager and team leader (PC)
- Suzanne Richardson – Lancashire Environmental Records Network, Lancashire County Council (SR)
- Andrew Dodd – Royal Society of the Protection of Birds (RSPB) (AD)
- Jeremy Sutton - RSPB (AS)
- Aly Mccluskie - RSPB (AMc)
- Jana Kahl – Environment Agency (JK)
- Lissa Batey – The Wildlife Trust (LB)
- Tania Davey – The Wildlife Trust (TD)
- Christina Platt – The Wildlife Trust (CP)
- Laurence Browning – Natural England (LB)
- Kathleen Bealby – Natural England (KB)

Agenda

1. Introductions.
2. Programme update.
3. Statutory consultation.
4. Site selection update.
5. EWG 1 and 2 recap.
6. Agreement log review.
7. Section 42 responses.
8. Survey update (and strategy).
9. Commitments and mitigation.
10. Wider application documents.
11. Next steps (next meeting)

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Notes	Meeting recorded		
1.	**Introductions** (presented by LMar) Welcome and introductions by all.		
2.	**Programme update** (presented by LMar) The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2024 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. The Applicants published the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation undertaken later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) afforded feedback on the PEIR and project as a whole. The Project has used this feedback to develop and refine assessments and refine the project further. In 2024 the Applicant will be undertaking a targeted consultation on changes adopted since the submission of the PEIR. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029. **Project update** (presented by LMar) PEIR was submitted on the 12 October 2023. Statutory consultation took place between the 12 October and the 23 November 2023. The Applicants are working through the feedback received as part of the statutory consultation and are presently preparing the Environmental Statement submission for Q3 2024.		
3.	**Statutory consultation** (presented by WD) A summary of the statutory consultation that has taken place since the publishing of the PEIR was presented. Key stakeholders were made aware of the consultation period by way of letter and emails. Consultation launched on the 12 October. In person events were held, as well an early evening webinar with elected representatives. The statutory consultation was focussed on the PEIR and to afford stakeholders an opportunity to provide detailed responses for the Applicants to consider before the submission of the ES. **Feedback from statutory consultation** An overview of the feedback received was presented, including the main themes identified such as the routing and the onshore substations.		

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	No questions were raised.		
4.	**Site-selection update** (presented by LMar) A summary of the site-selection process was presented, highlighting the key areas in which the Transmission Assets Red Line Boundary has evolved since the submission of PEIR and the previous EWG for onshore ecology and onshore and intertidal ornithology. The option to utilise trenchless techniques was discussed. An overview of the trenchless techniques likely to be implemented for the Transmission Assets was presented, with an acknowledgement that ongoing engineering feasibility studies would dictate the most suitable technique for each area proposed. More detail was provided on Horizontal Directional Drilling and the stages were described. A second option was presented, direct pipe installation, which utilises a micro tunnel boring. AS questioned the length of the trenchless technique proposed at landfall and more generally. LMar confirmed this is dependent on the features which are being avoided. LMar also confirmed that a crossing schedule would be included within the application. EM asked for more detail on the working compounds required for the trenchless techniques. LMar clarified this would be dependent on the techniques being used and the overall length, but an upper threshold would be 200 by 150 metres, which was confirmed by IM. AWat questioned the depth of the trenchless techniques, especially where below ground features were being avoided. LMar referred back to the ongoing feasibility studies and confirmed depths would vary in each location, but that up to 25 m below ground level is feasible where required. LL questioned the figure presented in slide 8. LL followed this up with a question on the trenchless technique at landfall and requested more detail on what was currently proposed. LMar stated that this was subject to ongoing feasibility work, but that open cut trenching would be implemented seawards of the trenchless techniques. **Landfall and onshore export cable corridor** An overall summary of the Transmission Assets was provided for those who had not been present at previous EWGs. LM presented the refinements along the onshore export cable corridor and the reasoning behind these amendments, or, where optionality has been retained for ES. The temporary cable corridor has been reduced from 120 m in width, to 100 m. As part of this exercise, the Applicants tried to site the onshore export cable corridor at a greater distance from important ecological features. Survey data collected to date was utilised as part of the refinement.		

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	A comparison of the onshore export cable corridor presented at PEIR, against the ES refinement, was shown and the key differences were discussed. This included the optionality to the east of the airport, as presented at PEIR. The reasoning behind removing the onshore export cable corridor option 2 (south) was provided which focussed on avoiding the farmland conservation area. One of the main changes to the onshore export cable corridor to be included in the targeted consultation was highlighted. The reasoning behind the introduction of this option was discussed, which focussed on feedback provided by landowners in proximity to the proposed changes and ongoing engineering feasibility studies for the suitability of trenchless techniques. **Onshore substations** Feedback on the onshore substations mainly focussed on the proximity to sensitive receptors. Refinement since PEIR submission has afforded greater distances between the Morgan onshore substation and these sensitive receptors, as well as the opportunity for more screening. The Morecambe onshore substation now only includes for one option, the southern option as presented at PEIR, as this was the favoured option when considering the feedback provided. Both onshore substation options allow for better distribution of the construction traffic and therefore negate a greater impact on singular roads. The closer proximity of the onshore substations also affords a more efficient construction programme between the two sites, reducing the number of crossing required. LL questioned whether the assessment of flood risk was to be included in the ES. The darker shading presented within the onshore substation permanent footprint, particularly the Morecambe onshore substation, was also queried. IM confirmed the darker box showed where the electrical equipment would be located. The lighter areas would also be permanent, but for landscaping and drainage. LL asked when stakeholders can expect to see more detail on what is proposed within the onshore substation footprint, especially in proximity to the adjacent watercourses. IM confirmed this would be included in the ES and further detail would be presented at upcoming EWGs to give stakeholders opportunity to feed into the process. LMar also confirmed that Dow Brook has been included in the Morgan onshore substation permanent area to understand whether there is opportunity for enhancement. **400 kV grid connection cable corridor** The refinement of the 400 kV grid connection cable corridor was presented. A cable route has been identified within the 400 kV grid connection cable corridor search area. The PDE has been further refined from 96 m to 76 m. The same principles as for the onshore export cable corridor were applied to avoid sensitive receptors as far as is feasible.		

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	Engineering feasibility surveys are ongoing for the crossing of the River Ribble. This is currently anticipated to be undertaken using a conventional tunnel, direct pipe or micro tunnelling methodologies. Where the 400 kV grid connection cable corridor splits into two separate routes, in proximity to Penwortham substation, this was confirmed to be as directed by National Grid. AS asked to review the onshore substation slides. LMar returned to the slides and suggested a figure to be provided which provides a comparison of the onshore substations as presented in PEIR to that as currently proposed. EM asked for confirmation that the 76 m referred to in relation to the PDE for the 400 kV grid connection cable corridor was the working zone for construction. LMar confirmed this was correct. No further questions were raised.	**Action 1: The Project to provide a figure with the PEIR and the proposed ES onshore substation layout overlaid.**	**Date: TBC (alongside meeting minutes)**
5.	**EWGs recap** (presented by AWhi) A summary of the key themes and actions from the previous EWGs was presented. Outstanding actions or elements to provide feedback on were highlighted. The outstanding response from LERN on the ancient woodland inventory was raised, as well as the outstanding feedback on the BNG strategy note that was provided prior to christmas. EM raised that neither herself nor her colleague were able to attend the BNG EWG. LMar confirmed that the associated materials could be shared following the EWG and a dedicated session could be held of that is of use. AWat noted the mention of the Lancashire Peat Strategies and asked how peat along the cable route had been considered. AWhi confirmed that the exercise to understand the peat within the cable route was being undertaken with a programme of intrusive surveys planned. AWat highlighted the Natural England Deep Peat Layer, which is a free tool and confirmed she would share this following the meeting.	**Action 2: The Project to pursue LERN data and ancient woodland update data.** **Action 3: The Project to share the BNG materials with the Greater Manchester Ecology Unit.** **Action 4: Natural England to share Deep Peat Layer Tool.**	**Date: TBC (alongside meeting minutes)** **Date: TBC (alongside meeting minutes)** **Date: TBC (two weeks following the meeting minutes)**
6.	**Agreements log** (presented by AWhi) A summary of the purpose of the agreements log and the agreements reached to date was presented. The inclusion of the survey methodologies was mentioned, with emphasis that the feedback from the Environment Agency in relation to the water vole guidance would be reflected in the next iteration of the methodologies. The biodiversity benefit strategy was mentioned, as the approach to this has been included in the agreements log. LL asked for stakeholders to be kept aware of the collaboration that is being proposed as a part of this. LMar confirmed there would be future	**Action 5: The Project to confirm next date for BNG EWG.**	**Date: TBC**

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	session held to provide updates, once the strategy has been fully mapped out. The scope of the wintering bird data was discussed and confirmed that two years of data would be included in the ES. EM asked how the gaps for the onshore export cable corridor option 1 (north), as presented within the PEIR, would be dealt with. AMa confirmed that the coverage was better than presented at PEIR and would include for the additional data in the ES. However, there are small spatial gaps for the breeding birds which can be suitably covered using the desk based data. No further questions were raised.		
7.	**Section 42 responses** (presented by AWhi and MF) A summary of the Section 42 responses were presented, focussing on the key points and where the Project intends to address these, as necessary, within the ES. MF presented how the mitigation hierarchy has been implemented through the refinement of the Transmission Assets, primarily in relation to the route selection work that has been completed since the submission at PEIR. It was confirmed more detail would be included in future EWGs on the mitigation implemented. The survey approach for peaty soils was presented, referring back to the earlier conversation about the forthcoming intrusive survey programme as well as utilising desk based data. A summary of the survey complete status was presented. The survey cut off for the PEIR was mentioned, which confirmed a portion of surveys completed in 2023 were not included in the PEIR but would be included within the ES. Furthermore, surveys have continued since the submission of the PEIR. An intensive six week period of surveys in April is programmed to fill gaps where necessary. A technical note on the survey programme will be shared with the EWG. It was requested for interested parties to provide their thoughts on this, including any suggestions. It was confirmed that the Important Ecological Features (IEFs) presented within the PEIR will evolve and it is anticipated to expand for the ES. The assessment will ensure to clearly set this out within the ES chapter. Those raised within the Section 42 process will be considered and included where relevant. AMa confirmed no works associated with the Transmission Assets are proposed for the Fairhaven site. However, this area has been identified for the potential to deliver mitigation. Surveys have been completed to better understand the baseline. Assessment of impacts to IEFs within these areas are therefore not required within the ES. The number of responses in relation to the assumptions applied to the Lytham St Anne's Sand Dunes was mentioned. Conversation was directed back to the earlier trenchless techniques slides which were included in answer to these responses. It was raised that feedback on these assumptions would be sought following the EWG.	**Action 6: The Project to share a Technical Note on the survey programme and coverage for ES.** **Action 7: The EWG to provide feedback on the assumptions presented regarding trenchless techniques,**	**Date: TBC (alongside meeting minutes)** **Date: TBC (two weeks following the meeting minutes)**

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	LL requested clarity on the acronyms Maximum Design Scenario (MDS) and IEFs, which was provided. LL noted whether the intention was to consider IEFs within designated sites. MF confirmed designated sites themselves are considered to be IEFs, but also may have IEFs within them such as habitats or species. This is dependent on the impact being considered. The separation of the onshore ecology and onshore and intertidal ornithology into two separate chapters of the PEIR and forthcoming ES was noted, which justified the lack of ornithological consideration within the onshore ecology and nature conservation chapter within the PEIR. Finally the Section 42 comments regarding particular IEFs and the conclusion presented within the PEIR were discussed, specifically the data gaps. It was confirmed that additional survey work, including review of desktop data, together with refinement of the Transmission Assets and the application of the mitigation hierarchy would address these queries. Where possible the Applicants are liaising with external bodies to ensure collaboration towards existing conservation objectives. EM queried who the North West Wildlife Trust were. WD confirmed this response was mainly drafted by Lancashire Wildlife Trust, but was branded as North West Wildlife Trust, part of the Living Seas team. Finally, a summary of the less frequently provided Section 42 responses was covered, including where mitigation and enhancement opportunities had been highlighted by stakeholders. No further questions were asked.	**specifically in relation to the sand dunes.**	
8.	**Section 42 responses ornithology** (presented by AMa) The Natural England responses on the Information to Support Appropriate Assessment (ISAA) was noted. It was confirmed this will be revisited and addressed ahead of the ES submission. It was confirmed that the mitigation hierarchy will be further developed for the ES submission, such as with the identification of sites such as Fairhaven. The grouping of IEFs will be amended for the ES. Where this was based on the species for the PEIR, the ES will now focus on the habitat requirements. This includes the consideration of the Functionally Linked Land (FLL) identified. No questions were asked.		
9.	**Survey update (presented by MF)** LMar confirmed that, as mentioned earlier in the EWG, a technical note would be provided on the survey coverage anticipated for the ES submission. MF noted this had been touched on earlier in the EWG, but the technical note will set out where the refinement of the Transmission Assets, including confirmation of avoidance		

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	measures, has reduced the need for surveys for the ES. Furthermore, where gaps remain, a six week intensive survey period has been proposed. More detail will be provided in the technical note to follow up. The contextual value of the data collected outside the ES survey area was also highlighted, as this affords more confidence in the conclusions drawn as part of the assessment. EM requested confirmation that the District Level License will be applied for. MF confirmed this is the anticipated approach, but more detail will be included within the ES. Finally, it was noted that the surveys completed in the wider area, ahead of refinement, have provided considerable contextual data to affirm the survey findings within the refined survey area. It was also noted that surveys within the areas identified for mitigation or enhancement, will be targeted to the measure(s) being proposed. No questions were asked.		
10.	**Survey update (presented by AMa)** AMa presented the temporal coverage achieved for the Transmission Assets ornithological surveys, which equates to 300 days of survey coverage across a two year period. The desktop data to support this was discussed, which includes ten years of data from Fylde Bird Club, further supported with BTO, which together can be used to characterise the assemblage and to identify peak counts for the key species. No questions were asked.		
11.	**Agreement log (additional) (presented by AWhi)** AWhi referred back to the agreements log presented in the earlier slides and noted that the intention would be to include additional agreements following this EWG. The key points for agreement would focus on the anticipated survey coverage, for which a separate technical note will be issued, as well as agreement on the assumptions to be made regarding avoidance of impacts with the implementation of trenchless techniques. LL noted that the avoidance measures utilising trenchless techniques were understood, but that assessment and assumptions regarding indirect impacts were less defined. This is especially where the entry and exit points and the associated working compounds are present. MF confirmed that the siting of the compounds and these details will be included within the PDE on which the assessment will be based. This would be further developed as more survey data was available for consideration. LM noted that this would be included in the project description chapter. However, the compounds for the trenchless techniques are not yet determine. LM suggested that the Project can provide additional information to give comfort that the ancillary works do not contribute to indirect effects. LL confirmed this would be useful, but noted it would be useful to considered hydrological impacts as well, such as at the sand dunes. LM confirmed that the commitments included buffer distance from the Lytham St Anne's Sand Dunes.	**Action 8: The Project to provide additional detail on the indirect impacts of the trenchless techniques assessed within the ES.**	**Date: To be presented at the next EWG.**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
12.	**Commitments and mitigation (presented by LM and AWhi)** LMar confirmed the commitment presented in the EWG we those include within the PEIR. It was flagged that these are developing and are being refined and added to as required. AWhi noted that this was included to seek any feedback on the suggested wording, noting that the full wording can be found within the PEIR submission. LMar confirmed the meeting minutes will include a link to the full commitments register. This can be accessed via the Morgan and Morecambe Information Hub webpage, or directly via the link provided. No questions were asked.	**Action 9: The Project to provide link to the PEIR Commitments Register within the meeting minutes.**	**Date: TBC (alongside meeting minutes)**
13.	**Wider application documents (presented by AWhi)** AWhi noted the wider documents that will be submitted in support of the planning application, highlighting those which will be relevant to the onshore ecology or onshore and intertidal ornithology assessments. This information was presented to seek feedback on elements stakeholders would consider critical for inclusion. No questions were asked.		
14.	**Next steps (presented by AWhi)** A summary slide was presented to highlight the key themes and actions from the EWG. The Project team will issue updated methodologies and will continue to seek an update on the ancient woodland inventory. Where possible, liaison with local projects will be shared with stakeholders. The Project will share a technical note on survey coverage, with the desire for the EWG to provide feedback. Following issue of more detail regarding the trenchless techniques, feedback on this from the EWG was also requested. A confirmation of a separate BNG follow up call was noted. EM requested more detail on the Queensway Farmland Conservation Area, as per the Section 42 response. Specifically the location and size of this as there would be wider implications to the status of the site and the Special Protection Area. AMa confirmed that the refined route now avoids the Queensway Farmland Conservation Area, but still encroaches on the Biological Heritage Site. EM requested for that to be clearer. LMar confirmed we can share mapping for the Queensway Farmland Conservation Area with the route overlayed to provide complete clarity. LMar closed out the meeting and confirmed the dates for the next EWG would be arranged in the coming months. No further questions were asked.	**Action 10: The Project to provide updated methodologies.** **Action 11: The Project to share .shp and mapping of the Queensway Farmland Conservation Area.**	**Date: TBC (alongside meeting minutes)** **Date: TBC (alongside meeting minutes)**
Summary of actions			
A1.	The Project to provide a figure with the PEIR and the proposed ES onshore substation layout overlaid.	**The Project**	**TBC (alongside meeting minutes)**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
A2.	The Project to pursue LERN data and ancient woodland update data.	**The Project**	**TBC (alongside meeting minutes)**
A3.	The Project to share the BNG materials with the Greater Manchester Ecology Unit.	**The Project**	**TBC (alongside meeting minutes)**
A4.	Natural England to share Deep Peat Layer Tool.	**Natural England (AWat)**	**TBC (two weeks following the meeting minutes)**
A5.	The Project to confirm next date for BNG EWG.	**The Project**	**TBC**
A6.	The Project to share a Technical Note on the survey programme and coverage for ES.	**The Project**	**TBC (alongside meeting minutes)**
A7.	The EWG to provide feedback on the assumptions presented regarding trenchless techniques, specifically in relation to the sand dunes.	**The EWG**	**TBC (two weeks following the meeting minutes)**
A8.	The Project to provide additional detail on the indirect impacts of the trenchless techniques assessed within the ES.	**The Project**	**To be presented at the next EWG.**
A9.	The Project to provide link to the PEIR Commitments Register within the meeting minutes.	**The Project**	**TBC (alongside meeting minutes)**
A10.	The Project to provide updated methodologies.	**The Project**	**TBC (alongside meeting minutes)**
A11.	The Project to share .shp and mapping of the Queensway Farmland Conservation Area.	**The Project**	**Date: TBC (alongside meeting minutes)**
Summary of Agreements			
ON-ECO1-1.22	Survey coverage for application. This will comprise the content as presented in the EWG and set out in more detail within the Technical Note to be shared following the EWG.	**The EWG**	**TBC (two weeks following the meeting minutes)**
ON-ECO-1.21	The use of trenchless techniques, subject to the provision of the additional information provided, affords agreement that habitats present within the Lytham St Anne's Dunes and the River Ribble crossing (and other are where this technology is to be implemented) will not be significantly affected by the Transmission Assets.	**The EWG**	**TBC (two weeks following the meeting minutes)**

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G.4.2: Technical Note – Meeting 4

Technical Note

Morgan & Morecambe Offshore Wind Farms: Transmission Assets
Reference: Transmission Assets Biodiversity Net Gain
Date: 22/12/2023

Introduction:

This document has been drafted as a summary of the challenges and opportunities associated with Biodiversity Net Gain (BNG) (which includes any biodiversity proposals which may provide biodiversity benefit) for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets Project (herein referred to as 'Transmission Assets', or the 'Project').

An Onshore Ecology Working Group Meeting (EWG3) was held on 15 December 2023 which focused specifically on BNG to communicate the Project's key findings to date. During the meeting it was agreed that a technical note would be drafted to obtain endorsement with statutory consultees and other EWG members on how the Project can best deliver biodiversity benefit.

Policy and Legislation:

The Environment Act 2021 included provisions applying certain BNG requirements to the nationally significant infrastructure projects regime (projects consented under the Development Consent Order (DCO) process via the Planning Act 2008). The Transmission Assets is not a Nationally Significant Infrastructure Project (NSIP) but should be treated as development for which development consent is required[1].

BNG is proposed to become a mandatory requirement for NSIPs from November 2025. It is anticipated that the level of requirement will need to be detailed within a BNG statement(s) (subject to prior publication and presently expected to be set at a minimum of 10%). The Department for Environment, Food and Rural Affairs (Defra) has confirmed that projects which have been accepted for examination prior to the November 2025 date would not be required to deliver that minimum BNG target, but could choose to do so voluntarily.

The overarching National Policy Statement for Energy (EN-1) and National Policy Statement for Electricity Networks Infrastructure (EN-5) provide additional policy on BNG, with specific recognition of the linear nature of electricity networks infrastructure and the enhancement opportunities they give rise to, for example, ecological connectivity and green infrastructure.

Therefore, the Project is proposing to deliver a Biodiversity Benefit Statement as part of the DCO application.

[1] On 4 October 2022 the Secretary of State issued a direction under section 35 of the Planning Act 2008 that the Transmission Assets should be treated as development for which development consent is required.

Assessment methodology:

As part of the Transmission Assets, an initial exercise has been undertaken to estimate the baseline value in biodiversity units for the onshore elements of the Transmission Assets landward of the Lytham St Annes SSSI which includes:

1. onshore export cable corridor;
2. permanent substation compounds;
3. 400 kV grid connection cable corridor; and
4. temporary construction compounds and associated temporary and permanent accesses;

The initial assessment which has been undertaken to date is has provided a broad calculation which the Project anticipate will be refined during the project's evolution.

As the Morgan and Morecambe Windfarms are electrically separate, two onshore substations are required as part of the Transmission Assets. As presented as part of the statutory consultation which occurred between 12 October 2023 and 23 November 2023, the following site options have been identified – one site for the Morgan substation, and two potential site options for the Morecambe substation.

Following statutory consultation the Morecambe project will select a single site for its onshore substation. While undertaking the indicative baseline calculations, it was identified that the Morecambe substation option with the highest baseline value was the northern substation option and as such, this has been presented below in order to present the potential worst-case scenario. The initial baseline calculations have been based off of the cable and site refinement undertaken to date.

As part of the Transmission Assets, it is proposed that Horizontal Directional Drilling (HDD) or other trenchless techniques will be used to cross a range of features, including main rivers, specific designated sites, A, B and C roads and other sensitive ecological features. Areas where HDD or other trenchless techniques are proposed to avoid impacts on habitats (e.g., the River Ribble and the Lytham St Annes Dunes SSSI) were excluded from the baseline.

Initial Findings:

The baseline unit values listed below have been calculated for the onshore elements of the Transmission Assets landward of the Lytham St Annes SSSI not the PEIR Transmission Assets Red Line Boundary.

Scheme options	Area (ha) (excluding HDD and other trenchless techniques)	Baseline units (excluding additional land for BNG)	Target units to achieve 10% BNG
Morecambe – with the northern substation option only	165.526	997.5	1097.25
Morgan	207.242	933.69	1027.059
Total	**372.768**	**1931.19**	**2124.309**

NB: Please note that these figures are subject to change.

The initial calculations summarised within the table above indicate that there is a high baseline value for the onshore elements of the Transmission Assets, despite the fact that the permanent land-take for the scheme comprises only the onshore substation areas.

The majority of the land is only affected by temporary works (i.e., the onshore export cable corridor, 400 kV grid connection cable corridor and temporary construction compounds and associated accesses) which comprise of three main habitat types: arable, improved grassland and 'other neutral grassland'. The latter two habitat types include pasture fields mostly used for dairy farming. As a result of the construction duration for the onshore elements of the project, it is unlikely that a 2-year construction period would be achievable consequently these habitats under the Natural England guidance could not be considered to be retained. At this point the project has assumed, for the assessment, that as worst case scenario all habitats included within the calculations would be lost and replaced.

When inputting this into the metric due to the temporal and difficulty multipliers there is a large amount of units required to deliver 10% net gain. The table below lists the units required for the Project to deliver 10% net gain.

Scheme options	Target units	Units from restoration	Units from retention	Total restored / retained	Additional units required
Morecambe – with the northern substation option only	1097.25	388.92	434.78	823.7	273.55
Morgan	1027.059	481.57	307.59	789.16	545.489
Total	**2124.309**	**870.49**	**742.37**	**1612.86**	**819.039**

NB: Please note that these figures are subject to change.

The above table indicates that 819 habitat units are required outside of the area proposed to be directly affected by the onshore elements of the Transmission Assets landward of the Lytham St Annes SSSI . That equates to around 100 hectares of land if it is assumed that habitat creation comprises medium value habitats (e.g. other neutral grassland/scrub) in good condition on arable land or modified grassland in poor condition (i.e. lowest starting value).

Challenges:

The Project, therefore, consider that the key issues for BNG for the Transmission Assets are as follows:

- Onshore/intertidal elements of the Transmission Assets have large footprint for temporary construction works despite relatively low permanent land-take.
- The baseline assessment for grasslands produces large values owing to assessment of habitat type and condition using Defra condition assessment sheets, necessitating that areas are categorised as other neutral grassland in good or moderate condition. This potentially raises an issue as to whether the threshold for separating 'modified grassland' from 'other neutral grassland' is too low and whether the threshold for moderate and good condition are too low.
- The Defra Metric applies temporal and difficulty multiplier penalties that generates a large value of land to be required to deliver BNG when assuming that the land is restored to existing condition post construction.
- Furthermore, Natural England guidance indicates that habitats must be restored to existing type and condition within 2 years to be counted as 'retained' in the metric rather than lost and recreated. The Project is unable to commit returning the land back to its original use within two years, given that that two separate developers are proposing to construct two electrically separate transmission asserts under this single DCO application. Furthermore, full restoration of other neutral grassland to good condition within 2 years is unlikely to be possible even if the programme constraints on restoration did not apply.
- Taken together, the above issues, when applied to the project using the Defra BNG metric, indicate that a very large area of land would be required to deliver BNG even though the majority of the habitats affected would be restored and that permanent land-take is limited to the onshore substation areas.
- Proposals for onsite BNG for transmission infrastructure (such as this Project) are limited in that the expectation is that habitats will be restored to existing habitat type and condition and handed back to landowner for continuing agricultural use. By contrast, other types of linear infrastructure, such as road and rail schemes, are generally able to retain significant areas of land within applicant ownership where habitat creation can be carried out, unless land is purchased under a Compulsory Purchase Order (CPO). Use of CPO powers to acquire land to deliver BNG for temporary impacts may seem excessive in terms of public perception of the scheme and could also result in landholdings becoming unviable for landowners/tenant farmers. This particularly applies to the Transmission Assets given that the Applicants are not statutorily required to deliver BNG under the Environment Act 2021, but are looking at providing a biodiversity benefit on a voluntary basis.
- Full implementation of BNG using the Defra metric for the whole of the Onshore/Intertidal Infrastructure Area is therefore not considered to be viable and is considered to be disproportionate relative to the

impacts of the scheme where, for example, the onshore export cables are proposed to be installed through predominantly intensively-farmed agricultural habitats.

- Offsite purchase of units of the scale theoretically required would again place a disproportionate financial burden on the Project relative to the actual impact generated .

Proposal:

The Project therefore proposes to adopt the following:

- Undertake a BNG assessment with delivery of net gain for the area of land occupied by the onshore substation areas only (whilst reinstating the export cable corridor and associated temporary areas to baseline habitat type and condition).
- Engagement with landowners affected by the Transmission Assets to explore voluntary agreements to deliver onsite BNG associated with the onshore substation areas.
- Exploration of collaboration with local schemes to help deliver onsite and offsite BNG. These could include:
  - habitat creation on site, particularly where habitat creation unrelated to BNG is required to mitigate for impacts on birds or other protected species; and/or
  - contributions to offsite conservation-based projects and initiatives; and/or
  - engaging with local authorities to enable parks, green infrastructure and green space initiatives to connect people and nature.

We look forward to your comments by the 18th January 2024 to our suggestions listed above to deliver biodiversity benefit on the Project.

G.5: Onshore Ecology – Meeting 5

G.5.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Onshore ecology EWG Meeting 5	**REV. No.:**	Rev01
Minutes of Meeting Subject	:	Transmission Assets Onshore ecology EWG Meeting 5		

MINUTES OF MEETING

MEETING DATE	:	31/05/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

[redacted]

Apologies:

[redacted]

Agenda

1. Introductions.
2. Programme update.
3. Site selection update.
4. EWGs recap.
5. Agreement log review.
6. Survey update (and strategy).
7. Next steps (next meeting)

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by [redacted] Welcome and introductions by all. Agreement to record the EWG.		
2.	**Programme update** (presented by [redacted] The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2024 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. The Applicants published the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation undertaken later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) afforded feedback on the PEIR and project as a whole. The Project has used this feedback to develop and refine assessments and refine the project further. In 2024 the Applicant undertook a targeted consultation on changes adopted since the submission of the PEIR. Following that the Transmission Assets application is currently planned to be submitted in Q3 2024. An intensive period of surveys is currently underway, prior to submission. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
3.	**Site-selection update** (presented by [redacted]) A summary of the site-selection process was presented, highlighting the key areas in which the Transmission Assets Order Limits has evolved since the submission of PEIR and the previous EWG for onshore ecology and onshore and intertidal ornithology. The onshore export cable corridor has been refined to reduce the number of options. The previous 400 kV grid connection cable corridor has also been refined to a corridor between the onshore substations and the grid connection at Penwortham. A singular site for the siting of the onshore substation has now been selected for Morecambe and further refinement has been made to the Morgan onshore substation including siting and orientation, which considered stakeholder responses. A decision has also been made to use Gas Insulated Switchgear, rather than Air Insulated Switchgear for the Morgan onshore substation. There has also been refinement of the crossing schedule, including the trenchless techniques to be used at landfall and to cross the River Ribble. It was noted that more details would be provided in the next EWG, together with the biodiversity benefit areas, which have also undergone refinement. No questions were raised.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
4.	**Agreements Log** (presented by [redacted] A summary of the key agreements made to date were presented. These included the updated survey methodologies; the biodiversity benefit approach and the scope of the wintering bird surveys. [redacted] noted than the wintering birds will be discussed further in the upcoming ornithology EWG. No questions were raised.		
5.	**Survey update** (presented by [redacted] An overview update on the survey strategy to date was presented. It was noted that due to the iterative nature for the project design, data has been collected outside the current survey area. This data will be used as contextual data but not used when reporting the percentage completion figures. It was noted that the survey completion within the PEIR did not include a number of surveys completed in 2023, due to the reporting cut-off date, but this will be included in the ES. Surveys have continued throughout 2023 and 2024, subject to seasonal constraints and in line within the agreed survey methodology. An intensive survey period began in April 2024, which is now nearing completion. Surveys up to mid-June will be included within the ES, however it was noted that some survey gaps will remain, which is the focus of this EWG meeting. **Survey area** (presented by [redacted] [redacted] presented a figure to indicate the iterative refinement of the survey area and the area within which contextual data will be available. No questions were raised.		
6.	[redacted] presented an overview of the current survey coverage and the steps to be taken ahead of submission. **Phase 1 Habitat survey** Approximately 97% of the Indicative Transmission Assets Order Limits has been covered, and ~95% of the 150m buffer. Phase 1 surveys continued until end May 2024. This includes gap-filling and revisits of areas initially surveyed at suboptimal times. For areas where Phase 1 survey cannot be completed, aerial photography will be utilised to categorise habitats, combined with professional judgment and contextual information provided by Phase 1 surveys in adjacent parcels. **Aquatic invertebrates (watercourses)** All significant watercourses including Dow Brook, crossed by the Indicative Transmission Assets Order Limits have been surveyed for aquatic invertebrates, with one exception of the River Ribble.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	[redacted] queried the refinement of the onshore export cable corridor was mentioned earlier in the EWG, but which option was selected. LMar confirmed that the option which avoided the Farmland Conservation Area was selected. Surveys undertaken to date are from one survey window in 2023. Survey methodology states that three surveys (one in each of spring, summer and autumn) are required where quality is good for aquatic invertebrates. The River Ribble will not be surveyed as trenchless techniques are to be employed for the crossing and therefore no direct impact is predicted. The professional opinion of the aquatic invertebrate surveyor, following the first visit of all watercourses undertaken in 2023, was that no further surveys of these watercourses were required – as the aquatic invertebrate communities recorded were not of sufficient conservation interest to require additional survey. Therefore, further surveys have been descoped. This is with the exception of Dow Brook, where sections previously inaccessible, are being surveyed. If necessary, Dow Brook will be considered of county level importance and mitigation will be provided. **Aquatic invertebrates (ponds)** All ponds scoped in for aquatic invertebrates have had an initial visit.Three ponds require further surveys as they have been considered to be good quality. These ponds require a further two surveys in summer and autumn. These latter surveys are anticipated to fall after submission of the ES. The ES will assume that aquatic invertebrate communities in any ponds identified as being of good quality in the spring surveys (and hence requiring further survey that cannot be completed by the time of ES publication) will be of county level importance, and mitigation (in the form of replacement ponds) will be provided accordingly. **Badgers** Approximately 96% of habitat within the Indicative Transmission Assets Order Limits and 30m buffer that were scoped in for further badger survey have been accessed and surveyed.To date, no active badger setts have been confirmed and therefore no sett monitoring has been undertaken. Badger surveys continued until the end of May 2024, by which time the majority of habitat considered suitable for badgers will have been covered. For any areas of suitable habitat where survey coverage is not available at ES stage, an assumption of likely value for badgers will be made based on professional judgment and the contextual information provided within the Lancashire Environmental Records Network data and the completed area of badger surveys (e.g. frequency of signs/setts recorded in nearby areas).		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Mitigation for badgers will likely include pre-commencement surveys as they are a mobile species. Further mitigation for badgers could include set closure under license. Where required these will be set out and included within the outline Ecological Management plan which will be submitted as part of the application. **Bats – methodology survey update** [redacted] presented the key items within the updated methodologies for bat surveys. These include the following. • Trees with bat potential no longer classified as low/medium/high. Instead, categorised as 'none', 'further assessment required' or 'at least one Potential Roost Feature (PRF)' present. • Trees with at least one PRF preferentially surveyed by aerial inspection (climbing) on three occasions, unless the tree is considered unsafe to climb. • Unsafe trees surveyed via dusk emergence. • Dawn surveys no longer required, including for structures with bat roost potential, and the optimum survey period is May – September. • Minimum time period between surveys of same PRF is three weeks (increased from two) **Bat activity** Eighteen locations were identified originally as requiring bat activity surveys. All 18 locations have had an April/May survey, apart from at one location we were unable to retrieve or redeploy detectors due to access challenges. Five new locations were scoped in late May due to project refinements . These had their first survey in May. Survey coverage focussing on hedgerows and habitat suitable for bats that are permanently lost (within onshore substation areas) and hedgerows that are severed for cable installation. Bat activity surveys using static monitoring detectors are proposed on three occasions (April, May and June) for inclusion in the ES. Surveys will then continue monthly for the remainder of the activity survey season (July to October). Survey coverage achievable within the timeframe for ES submission does not allow the collection of a full survey season of bat activity data. The value of the bat assemblage IEF will be assessed based on results of 2023 and 2024 surveys, along with data search results and the professional judgment of experienced bat ecologists. Where there is uncertainty, a precautionary approach will be assumed. Mitigation for temporary severance of flightlines, if required, will be provided in the form of artificial flight lines until planting mature to a sufficient height, which will be include within the Outline Ecological Management Plan. **Bat Preliminary Ground Level Roost Assessment (PGLRA)**		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Approximately 89% of areas considered potentially suitable for bat roosts within the Indicative Transmission Assets Order Limits have been assessed for GLRA. Around 3,000 trees have been assessed by GLRA surveys PGLRA surveys will continue subject to access in May and June. The majority of potentially suitable trees will be surveyed for the ES. Estimated PGLRA survey coverage at ES stage is >89%. Majority of surveys completed by April 2024 . As the trees were not in full leaf by this point, the conditions are considered suitable for PGLRA. For any trees affected by the scheme that are not surveyed prior to ES, the potential for roost presence and for adverse effects will be assessed, based on professional judgement and a review of survey information obtained for the scheme in other locations. **Bat tree climbing (hibernation)** Approximately 50% of trees considered to have bat roost potential within the Indicative Transmission Assets Order Limits have been climbed during the hibernation period (November to February). Those trees situated around the substation were categorised as priority trees for bat tree climbing hibernation surveys. Of these priority trees 95% have had the surveys completed. Any trees with bat hibernation potential that would be directly affected by the Project (through loss) that remain not surveyed will be surveyed in the 2024 to 2025 hibernation period. For any trees where survey coverage is not available at ES stage, the potential for roost presence and for adverse effects will be assessed, based on professional judgement and a review of survey information obtained for the scheme in other locations. **Bat tree climbing (active)** Approximately 60% of trees considered to have bat roost potential within the Indicative Transmission Assets Order Limits have been climbed on at least one occasion. Surveys will prioritise trees that would be directly affected by the scheme (through loss). Climbing surveys will continue into May and early June 2024 for trees within substations that would be felled. For any trees where survey coverage is not available at ES stage, the potential for roost presence and for adverse effects will be assessed, based on professional judgement and a review of survey information obtained for the scheme in other locations. **Bat tree emergence** There are 13 trees targeted for bat emergence surveys. Of the 13 trees identified 10 trees have had their first visit. Emergence surveys programmed in April to May 2024 for 13 trees with roost potential that are directly affected (through loss) and which have been assessed as unsafe to climb. For any trees subject to emergence surveys, if the three emergence surveys cannot be completed by ES submission, these surveys will be completed in late June to September.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	At application, if any emergence surveys of trees are incomplete, the potential for bat roost presence and for adverse effects will be assessed, based on professional judgement and a review of survey information obtained for the surrounding environment. Precautionary and appropriate mitigation will be applied accordingly. **Fish and eel** All significant watercourses crossed by the Indicative Transmission Assets Order Limits have been surveyed for fish in 2023, with the exception of the River Ribble. The River Ribble will not be surveyed as trenchless techniques are to be employed here, with no direct or indirect impacts on the River Ribble anticipated. Survey results generally indicate relatively low populations of fish (Six of 16 watercourses categorised as dry / partially dry with no fish; no captures in a further three watercourses). However, European Eel recorded at Mill Brook, Dow Brook and Wrea Brook. **Great Crested Newt (GCN)** All 23 ponds identified within the Indicative Transmission Assets Order Limits have been surveyed. No further surveys are proposed. GCN population status within Transmission Assets Order Limits to be assessed based on eDNA survey results and desk study combined with professional judgment. Mitigation is anticipated to be covered by the Project joining the District Level Licensing (DLL) Scheme. **Hedgerow** Hedgerows have been mapped as part of the Phase 1 habitat. Additional surveys of hedgerows have been undertaken to assess condition and species-richness to inform the baseline assessment. Approximately 96% of 1,000 sections of hedgerows have been surveyed, with 40 sections of these hedgerows being assessed as 'Important'. Additional hedgerow surveys carried out until May 2024, focusing on hedgerows that will be directly impacted by permanent or temporary loss. Any surveys of hedgerows proposed to be lost that were previously completed at suboptimal times were re-surveyed by the end of May 2024. Mitigation for hedgerow loss to comprise a) avoidance via trenchless techniques where possible, b) reinstatement of hedgerow planting along cable corridor, and c) planting of replacement hedgerows elsewhere for permanent losses associated with substations. **Invasive Non-Native Species (INNS)** Records of INNS have been collected during surveys undertaken in 2023 in 2024. INNS records also obtained from LERN. No further walkover surveys proposed prior to submission. INNS surveys will be undertaken under direction of a Suitable Qualified Ecologist prior to commencement, where required, to inform detailed control programmes. Distribution of Schedule 9 INNS within the Indicative Transmission Assets Order Limits will be assessed based on survey data and secondary data sources		

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	such as INNS data. Outline biosecurity protocols for INNS to be provided at ES stage. Detailed proposals for INNS control, where required, will be provided prior to commencement. **National Vegetation Classification (NVC)** A small number of NVC surveys were undertaken in 2023 in the wider PEIR Red Line Boundary prior, a portion of which are within the Indicative Transmission Assets Order Limits. No additional full NVC surveys are currently proposed. A survey of Fylde Sand Dunes if required will be undertaken to assess changes from 2016 NVC survey mapping. Based on the Phase 1 survey results, the majority of the habitats were not scoped in for detailed NVC survey, as the majority of habitats were found to be commonplace, primarily comprising arable and improved or semi-improved grassland. **Otter** Approximately 90% of watercourses scoped in for otter surveys have been surveyed within the Indicative Transmission Assets Order Limits in 2024. Surveys of otters were also undertaken within the PEIR red line boundary in 2023. These survey results will also be used to inform the baseline for ES, reported as contextual data only. Additional otter surveys are ongoing and will continued until May 2024. At ES, the majority of suitable otter habitat will have been surveyed on at least two occasions. Results indicate presence of otters in a number of watercourses including a habitat corridor from Savick Brook north of the Ribble down to Mill Brook south of the Ribble. Where possible, impact avoidance via trenchless crossings of EA Main Rivers. Additional mitigation for construction disturbance proposed for Lea Marsh, for which more detail will be included in the next EWG. **Reptiles** Approximately 60% of the scoped Indicative Transmission Assets Order Limits have been surveyed for Reptiles on at least one occasion. Reptile surveys within the Indicative Transmission Assets Order Limits, where suitable habitat is present, commenced in April 2024 and are ongoing, expected to complete at end May 2024. The majority of suitable reptile habitat will be surveyed for the ES. In the event that areas of potential reptile habitat are not surveyed, a precautionary approach will be adopted. Common species of reptile will be assumed present and mitigation implemented accordingly. **River habitat surveys (MoRPH)** River MoRPH surveys were undertaken in 2023 and 2024. There are two sections which are left to survey – which include Savick Brook within the Transmission Assets Order Limits, and Dow Brook adjacent to the two substations. However, impacts on EA Main Rivers, and ordinary watercourses where practicable, from cable installation are to be avoided via trenchless techniques.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Terrestrial invertebrates Scoping survey for habitat considered to have potential to support significant terrestrial invertebrate assemblages was undertaken in 2023. Two locations where potential for terrestrial invertebrate assemblages of interest were identified: Morgan substation and Lea Marsh. Additional surveys are planned for both locations, which commenced in May 2024 and with further surveys in summer/autumn 2024. Where habitats were considered unlikely to support assemblages of interest, the need for further surveys was descoped. Where further surveys required, at ES stage habitats (and hence assemblages) will be assumed to be of good quality and mitigation will be designed to replicate existing conditions of the areas impacted. **Water vole** Approximately 92% of watercourses scoped in as requiring water vole survey have had full surveys (i.e. one survey visit in both in April to June and July to September). Additional surveys were proposed until the early June 2024, which will increase the proportion of surveyed watercourses that have had complete survey coverage (i.e. two separate visits). Current results contain no confirmed signs or sightings of water vole. Therefore, no mitigation (other than trenchless techniques to cross EA Main Rivers) is considered likely to be required. [redacted] queried the findings to date regarding water voles and the lack of signs found. It was queried what number of surveys were completed and when, following there being an initial concern surveys were being completed in suboptimal conditions or in smaller number. [redacted] confirmed 2023 data only included for the latter part of the season, whereas data for 2024 has been much more complete (with the option to continue further). [redacted] suggested that more information can be provided on this to ensure the coverage is understood. [redacted] suggested this would be useful. **White Clawed Crayfish (WCC)** No further WCC surveys needed as Indicative Transmission Assets Order Limits is outside confirmed range of species and watercourses unsuitable. Therefore, no WCC surveys undertaken in 2024. [redacted] asked for any questions on the surveys approach. [redacted] asked for clarification on the timelines. [redacted] confirmed it would be Q3. [redacted] queried the overall survey coverage at the point of submission, with reference to the NSIP reforms and the requirement for completed datasets for acceptance. [redacted] flagged that the Transmission Assets is not an NSIP, but noted that survey coverage anticipated at submission and the reasoning as to why this is considered as sufficient. [redacted] referred the project to	**Action 1: Detail to be provided on the scoping and coverage of the water vole surveys at the next EWG. This is in response to the expectation that more water vole sightings would have been expected.**	**20/06/2024.**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	paragraph 011 of the NSIP reforms and queried the Section 35 direction that was received. [redacted] asked for more detail on the planned mitigation for otters, specifically where this information would be provided. [redacted] confirmed this would be set out in the Outline Ecological Management Plan. [redacted] asked for confirmation that all otter mitigation will be included in the Outline Ecological Management Plan. [redacted] confirmed this is correct. No further questions were asked.		
7.	**Next steps** [redacted] confirmed that the updated methodologies and survey coverage note would be shared following the meeting and requested for comment to be provided in the next three weeks. [redacted] confirmed the next EWGs planned for ecology (20 June) to discuss the mitigation proposed for each of the survey types and the biodiversity benefit. The separate ornithological mitigation EWG was also noted (19 June). No further questions were asked. The EWG was ended.	**Action 2: The Project to issue the updated survey methodologies.** **Action 3: The Project to issue the survey coverage note.**	**20/06/2024.** **20/06/2024.**
Summary of actions			
A1.	**Action 1:** Detail to be provided on the scoping and coverage of the water vole surveys at the next EWG. This is in response to the expectation that more water vole sightings would have been expected.	**The Project.**	**20/06/2024.**
A2.	**Action 2:** The Project to issue the updated survey methodologies.	**The Project.**	**20/06/2024.**
A3.	**Action 3:** The Project to issue the survey coverage note.	**The Project.**	**20/06/2024.**
Summary of Agreements			

RESTRICTED

G.6: Onshore Ornithology – Meeting 6a

G.6.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Onshore ornithology EWG Meeting 6A	**REV. No.:**	Rev01
Minutes of Meeting Subject	:	Transmission Assets Onshore ornithology EWG Meeting 6A		

MINUTES OF MEETING

MEETING DATE	:	19/06/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	A White (RPS)
ISSUED BY	:	A White (RPS)

Attendees:

- Laura Martin – bp (LMar)
- Wendy Dodds – bp (WD)
- Leo Asuelimen – Flotation Energy (LA)
- Ian Mackay – Flotation Energy (IM)
- Andy Mather – RPS (AM)
- Lucas Mander – RPS (LMan)
- Alice White – RPS (AWhi)
- Liz Locke – Environment Agency, National Infrastructure Team (LL)
- Alice Watson - Natural England, Senior Officer Onshore Assets Lead (AWat)
- Andrew Dodd – Head of Case Work, RSPB (AD)
- Jeremy Sutton – Senior Conservation Officer, RSPB (JS)
- Phil Cousins – Preston City Council, Development manager and team leader (PC)
- Emma Marston – Greater Manchester Ecology Unit, Planning Manager (EM)

Apologies:

- Ian Mackay – Flotation Energy (IM)
- Emma Marston – Greater Manchester Ecology Unit (EM)
- Derek Richardson – Tameside, Ecological Advisor to Local Planning Authorities (DR)
- Andrew Stell – Fylde Borough Council, Development Manager (AS)
- Phil Cousins – Preston City Council, Development manager and team leader (PC)
- Suzanne Richardson – Lancashire Environmental Records Network, Lancashire County Council (SR)
- Jana Kahl – Environment Agency (JK)
- Megan Williams – Environment Agency, Biodiversity Officer (MW)
- Lissa Batey – The Wildlife Trust (LB)
- Tania Davey – The Wildlife Trust (TD)
- Christina Platt – The Wildlife Trust (CP)
- Laurence Browning – Natural England (LB)
- Kathleen Bealby – Natural England (KB)
- Elliot Waltho – Natural England, Lead Advisor for Morecambe and Morgan (EW)

Agenda

1. Introductions.
2. Programme update.
3. Site selection update (intertidal works).
4. Survey update.
5. Summary of mitigation strategy.
6. Reducing adverse effects.
7. Pre-construction surveys.
8. Monitoring of proposed mitigation areas.
9. Next steps (next meeting)

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by LMar) Agreement to record the EWG. Welcome and introductions by all.		
2.	**Programme update** (presented by LMar) The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2024 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. The Applicants published the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation undertaken later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) afforded feedback on the PEIR and project as a whole. The Project has used this feedback to develop and refine assessments and refine the project further. In 2024 the Applicant undertook a targeted consultation on changes adopted since the submission of the PEIR. Following that the Transmission Assets application is currently planned to be submitted in Q3 2024. An intensive period of surveys is currently underway, prior to submission. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
3.	**Site-selection update (intertidal works)** (presented by LMar) LMar ran through the design updates since the submission of PEIR. The design refinements made since the statutory consultation stage include: • refinement of the landfall area; • refinement of the onshore export cable route to reduce the number of cable route options between the landfall and Penwortham. • refinement of the 400 kV grid connection cable corridor from the search area provided at PEIR to the 400 kV grid connection cable corridor defined by the Transmission Assets Order Limits. • selection of substation sites, including: – selection of a single site for the onshore substation for the Morecambe Offshore Windfarm: Transmission Assets; and – refinement of the siting and orientation of the onshore substation for the Morgan Offshore Windfarm: Transmission Assets, to take into account consultation responses received. • selection of a preferred technology for the onshore substation for the Morgan Offshore Wind Project: Transmission Assets to use Gas Insulated Switchgear and not Air Insulated Switchgear.		

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	• refinement of crossing technologies at the landfall and the River Ribble. • refinement of the locations for the use of horizontal directional drilling (or other technologies). • refinement of biodiversity benefit and enhancement areas. LMar noted the biodiversity benefit and enhancement areas would be discussed in full at the EWG 6B, to be held on the 27 June. **Intertidal works** LMAr noted the importance of the intertidal works due to the ornithological sensitivities in this area. The landfall including the intertidal area includes the following activities. • Site Preparation • Direct Pipe Trenchless Installation • Construction of the TJBs • Works between the direct pipe exit pits on the beach to MLWS • Associated temporary compound areas and temporary accesses • Associate operation and maintenance working area(s) (i.e. for cable burial and repair in intertidal); and operational access. **Site preparation** LMar confirmed that because of tall the ornithological constraints, together with the busy beach location, the Project has tried to reduce the potential impacts. For this reason there will be a number of smaller compounds to reduce the potential disturbance in areas which could affect ornithological features or beach users. These compounds include: • compound 1, sited at north beach car park, which will be 300 metres squared (m^2) and required for a 36 week period. • compound 2, sited above Mean High Water Springs (MHWS), which will be 2,500 m^2 and required for a 48 week period. • compound 3, the sand extraction compound, which will be 510 m^2 and required for a 48 week period. • compound 4, sited at Clifton north drive, which will be 600 m^2 and required for a 36 week period. **Direct pipe trenchless installation** The offshore export cables between the TJB working area (within Blackpool Airport) and the beach will be installed using direct pipe trenchless technique. The direct pipe trenchless technique is a hybrid method between micro-tunnelling and Horizontal Direction Drilling (HDD). The direct pipe installation is a fully cased system which reduces risks associated with frack out of drilling fluids or the collapse of		

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	the drill hole if unsuitable ground conditions are encountered along the drill profile. LMar presented a map. The Transition Joint Bays (TJBs) will be located in the airport and the trenchless techniques will be utilised under the Lytham St Annes Dunes Site of Special Scientific Interest (SSSI), the golf course and the railway, with the exit on the beach with a minimum offset distance of 15 metres (m) from boundary of the Lytham St Annes Dunes SSSI. The exit pit may be located between MHWS and Mean Low Water Springs (MLWS). Pipe thrusting (direct pipe) would be carried out by launching a micro-tunnel boring machine from an excavated launch pit within TJB, located within the airport. Steel casing pipe would be welded in section lengths and connected to the Micro-Tunnel Boring Machine (MTBM), and the whole assembly would then be jacked towards the beach exit location by hydraulic rams or thrusters located within the direct pipe entry pit within the TJB area. It is anticipated that the direct pipe will exit on the beach around MHWS. However, this is subject to further post-consent survey and detailed design. To allow the recovery the MTBM, an exit pit would be required for each circuit, which may require the installation of cofferdams (likely to be 15 m x 5 m) with sheet piles around them, with a week anticipated for the construction of each cofferdam. The utilisation of Direct Pipe means that the interaction with the beach is greatly reduced in comparison to other trenchless techniques. For example, the comparative duration of interaction for Horizontal directional drilling would be ten weeks, whereas for direct pipe, this period would be reduced to two weeks. **Construction of TJBs** LMar confirmed that once the direct pipe ducts/pipes for the offshore export cables have been installed between the entry point at the TJBs and the beach exit points, the permanent TJBs will then be constructed within Blackpool Airport. Up to six TJBs are required, one for each cable circuit, i.e. up to four for Morgan OWL and up to two for Morecambe OWL. A TJB consists of a concrete lined excavation into which the offshore and onshore export cables are pulled before the cables are jointed together. Each TJB will contain an underground link box, contained within an underground chamber and will be accessible via an inspection cover at ground level. Each TJB will also include a similar underground fibre optic link box, also contained within an underground chamber with surface level access. Each transition joint bay will include an underground cable link box and fibre optic cable box, both of which will be accessible via an inspection cover at ground level. **Works between the direct pipe exit pits on the beach to MLWS**		

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	LMar presented an overview of the works between the direct pipe exit pits on the beach to MLWS. The offshore export cables will be brought ashore to the beach via the CLV, cable floats, cable roller boxes, and intermediate pulling platform(s) and pulled through the direct pipe from the beach to the TJB. LMar provided example images for the cable roller boxes and intermediate pulling platform(s). The intermediate pulling platform(s) are anticipated to be up to 120 m^2. The platforms may be ballasted platforms and/or vibro-piled platforms in the intertidal area or barges (e.g. a spud barge) or a small jack-up vessel may be floated in, before being jacked up in the subtidal area (but not within the Fylde MCZ) or intertidal area. Due to the length of the intertidal area, up to 600 cable roller boxes may be required to support each offshore export cable during the pull-in, installed via single vibro-piles spaced at approximately 3 m. The offshore export cables are then jointed to the onshore export cables via the TJBs. **Offshore export cable burial between exit pits and MLWS** LMar presented an overview of the Offshore export cable burial between exit pits and MLWS. The offshore export cables will be buried between the direct pipe/duct exit pits and MLWS. The initial burial starts at the direct pipe/duct exit pit (i.e. at the cofferdam locations) via open trenching, towards MLWS. The trench is likely to be a stepped side trench to maintain stability with a top width of up to 10 m and a depth of approximately 3 m. Up to 300 m of open trenching may be required per cable. As soon as practicable, there will be a transition from open trenching to a beach trencher which will cover the intertidal area. This will be a marinised trencher (mechanical and/or water jet trenching) and will provide 3 m deep trenching but with a narrower trench width at the surface / top, approximately 3 m wide. **Beach Works Durations** LMar confirmed that the maximum duration of the beach works associated with the direct pipe (including mobilisation and demobilisation) would be 12 weeks. LMar then confirmed that the maximum duration of cable pull and cable burial (including mobilisation and demobilisation) would be 36 weeks. This would be avoided during the core wintering period, with the only exception being for potential programme overrun. The Project has assumed up to two direct pipe installations within the core wintering period, which limits the period to four weeks. **Operation and Maintenance** LMar presented additional details regarding operation and maintenance within proximity to the intertidal area. Between the direct pipe exit pits and the subtidal, where offshore export cable repairs and reburial may occur, access to the beach would be		

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	required. Inspection of the beach area is expected to take place on an annual basis, with a maximum of 2 persons on foot. Access for visual inspection would be via existing pedestrian public access rights of way. Where cable repair and reburial may be required on the beach similar plant, machinery and equipment as for construction would be required. Compound 1 would be required to facilitate maintenance activities, and access for plant and equipment would utilise the same access point as for construction off Clifton Drive North (A584). An operational access would be required up to 6 m in width. The same methodology and maximum design parameters as for construction would be used for the operational access and Compound 1, for cable reburial and repair maintenance activities. AWat raised a question on the matting, specifically regarding whether detail on the weight of machinery that the matting can be used for will be confirmed, to ensure the habitat beneath will not be damaged. LMar confirmed the Project would take that away and look to provide that as requested. EM asked what was being referred to regarding the existing track. LMar confirmed it was majority a concrete track for the most part, then matting will be used within the sand. EM asked it the track is through the SSSI. LMar confirmed this is not in the SSSI, but a small width between two sections. No further questions were raised.	**Action 1: The Project to provide detail on the maximum weight tolerance of matting to protect habitats beneath.**	**TBC.**
4.	**Survey update** (presented by AM) AM provided a brief update on the status of the surveys completed to date and those which have been completed since the submission of PEIR. This includes the mitigation area which have been assumed for the project, to ensure targeted mitigation. The Project has acquired two years of breeding bird surveys and wintering bird surveys have been completed. Surveys focusing on the mitigation areas have commenced. More detail in the following slides. Surveys focusing on the intertidal area, around the River Ribble crossing, are ongoing until September 2024. No questions were raised.		
5.	**Summary of mitigation strategy** (presented by AM) AM provided a summary of the mitigation proposed for the Project currently. As presented in earlier slides, there is a commitment to restrict the works at landfall during the wintering period, to help mitigate for the intertidal waders at landfall and the temporary habitat loss and disturbance. AM confirmed that only one cable will be worked on in the intertidal area for each wintering period, not all six. Fairhaven saltmarsh offers an opportunity to improve a roost for a number of species which have been noted by the Project surveys		

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	and beyond. The intention would be to implement measures to reduce disturbance. Along the cable corridor, there is an intention to temporarily improve an area of arable land, at Lytham Moss, which connected to the Functionally Linked Land (FLL), through which the cable is moving through. The only area of permanent mitigation provided will be at Newton-with-scales, to mitigate for the habitat loss associated with the onshore substations. The sites of the onshore substations do not offer high quality habitat for ornithological features. AM presented indicative mapping for the mitigation areas proposed. Am noted Lytham Moss FLL is also part of the Biological Heritage Site. Newton-with-Scales looks to support populations also using the Newton Marsh SSSI. **Fairhaven Saltmarsh** If required, the anticipated measures that are likely to be taken at Fairhaven saltmarsh to reduce disturbance upon roosting waders in the SPA, may include: • deployment of a warden; • educational signage; and • soft fencing. These measures aim to encourage members of the public, such as dog walkers, to avoid the tideline around high water where intertidal bird species roost, thereby helping to prevent disturbance. AM noted that disturbance from dogs had been noted on multiple occasions during the surveys. **Arable land at Lytham Moss** If required, measures are anticipated to be taken on arable land at Lytham Moss to provide supplementary feed for Pink-footed Geese (PFG) at an alternative site during the core wintering period (November to March). These anticipated measures may include the following. • Feeding will likely comprise retention of spoiled crop and/or the import of additional feed. • Previous mitigation measures for PFG at Lytham Moss include supply of potato as supplementary feed, as well as waste/surplus grain1. • Mitigation will begin prior to commencement of construction activities within the area of functionally linked land. AM mentioned the Farmland Conservation Area (FCA) as mitigation for other schemes, which deliver additional feeding for geese. The Project would seek to provide alternative feeding in areas away from construction to minimise disturbance, whilst providing connectivity to the existing mitigation areas. **Land south of Newton-with-Scales** For the permanent loss of habitat associated with the onshore substations. Benefit breeding and wintering waders. Conversation with Fylde Bird Club and this should also allow for habitat to		

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	support the species of interest they have noted and identified to the Project. If required, measures that are likely to be taken in the area to the south of Newton with Scales with the aim of reducing the impact of temporary and permanent habitat loss at the substation. These may include, albeit are not limited to the following. • Creation of scrapes. • Controlling drainage with sluices. • Improving field margins. • Thickening hedgerows. • Limiting livestock numbers. • Implementing organic farming practices to increase the numbers of invertebrate. No questions were asked.		
6.	**Reducing adverse effects** (presented by AM) AM provided a summary of the aims in reducing adverse effects. These included the following. **Landfall:** • Seasonal working practices will reduce impacts during the most sensitive period. • Reducing disturbance at Fairhaven will reduce daily energy needs for birds subject to impacts at the landfall. **Cable corridor:** • Providing food for geese and swans will mitigate for the temporary loss of foraging grounds. • Scrapes will attract waders to areas away from adverse impacts. **Onshore substations:** • Scrapes and improved habitat will mitigate for loss of land for waders and wildfowl. • Improved field margins and hedges, and the use of bird friendly farming techniques will enhance the area for rare and declining farmland birds. No further questions were asked. AM requested information from the EWG and feedback on the mitigation presented. JS noted agreement with all the measure proposed and the effectiveness proposed. Also suggested reprofiling of the creeks within Newton Marsh, for breeding black-tailed godwit. This would need to be agreed with landowners and would include a couple of days with an excavator. AM noted that BAE would potentially object to the proximity of the aerodromes, which was feedback raised during the Section 42 consultation. JS reiterated the minimal work required, to create slopes into the creeks, not necessarily increasing the populations. AWat asked about the temporary loss of saltmarsh. AM confirmed this is not the case and it is only the temporary loss of intertidal habitats. AWat noted that the loss of tidal marsh would need to be		

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	assessed in the HRA, specifically the loss of habitats. AM confirmed that this has been assessed separately within the HRA. AM confirmed this has been completed. AWat asked for collaboration with the existing mitigation at the FCA and can provide contact details to this, they would also want the mitigation in place ahead of the works being completed. AM requested contact details to be provided to the Project, which AWat confirmed will be shared. AWat would like overall enhancement delivered by the mitigation areas, but for the HRA to focus on the qualifying bird species associated with the designated sites. AM confirmed this is the case. No further questions were asked.	**Action 2: AWat to share the relevant contact details for the existing team managing the FCA.**	Two weeks after issue.
7.	**Pre-construction surveys** (presented by AM) AM confirmed that the ornithological surveys are set to be completed prior to the commencement of construction. If required, these are anticipated to take the form of: • Full breeding bird surveys (based upon the common bird census methodology) at the substation site, due to the intermittent access to date. • baseline wintering and/or breeding bird surveys at the mitigation areas. • goose and swan surveys at Lytham Moss to refine the mitigation needs for supplementary feeding. • continue baseline surveys at Fairhaven saltmarsh. All surveys will follow methodology set out in the Bird Survey Guidelines for Ecological Impact Assessment where relevant. No questions were asked.		
8.	**Monitoring of proposed mitigation areas** (presented by AM) AM confirmed that monitoring of mitigation areas would be a key part of the plans to ensure they are effective and to amend where required. All mitigation areas are anticipated to be monitored while construction works are ongoing, including: • breeding surveys. • wintering and migratory bird surveys. • intertidal survey; and • dedicated goose and swan monitoring surveys at the arable land at Lytham Moss. This will ensure all measures are minimising the impacts of permanent and temporary habitat loss and disturbance on species using the area as the result of construction works. AM requested information from the EWG and feedback on the pre-commencement and monitoring presented. AD asked regarding the monitoring surveys, where would this be included in the application. AM confirmed that as much detail as the Project can will be included in the application documents for the DCO. But otherwise could be developed through the examination.		

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	No further questions were asked.		
9.	**Next steps** LMar asked for any further questions of AOB. Confirmed the next EWG on the 27 June 2024. EM asked for details on the intertidal works, perhaps with drawings. LMar said that the next EWG would ideally be the time in which we can present the works plans, but there would be more flexibility required due to the forthcoming site investigation works, and so that would be noted. Action for the team to consider how this can be done. No further questions were asked. The EWG was ended.	**Action 3: The Project to share mapping to review alongside the information provided to date on the intertidal works.**	**TBC**
Summary of actions			
A1.	**Action 1: The Project to provide detail on the maximum weight tolerance of matting to protect habitats beneath.**	**The Project**	**TBC**
A2.	**Action 2: AWat to share the relevant contact details for the existing team managing the FCA.**	**Natural England**	**Two weeks after issue.**
A3.	**Action 3: The Project to share mapping to review alongside the information provided to date on the intertidal works.**	**The Project**	**TBC**
Summary of Agreements			

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G.7: Onshore Ornithology – Meeting 6b

G.7.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Onshore ecology EWG Meeting 6B	**REV. No.:**	Rev00a
Minutes of Meeting Subject	:	Transmission Assets Onshore ecology EWG Meeting 6B		

MINUTES OF MEETING

MEETING DATE	:	27/06/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

[redacted]

Apologies:

[redacted]

Agenda

1. Introductions.
2. Programme update.
3. Site selection update.
4. Landfall works.
5. Survey update.
6. Summary of mitigation strategy.

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7. Reducing adverse effects.
8. Pre-construction surveys.
9. Monitoring of proposed mitigation areas
10. Next steps.

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by [redacted] Welcome and introductions by all. Agreement to record the EWG.		
2.	**Programme update** (presented by [redacted] The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2024 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. In Spring 2023 the Applicants undertook non-statutory consultation. The Applicants published the Preliminary Environmental Information Report (PEIR) in Autumn 2023, with formal consultation undertaken later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) afforded feedback on the PEIR and project as a whole. The Project has used this feedback to develop and refine assessments and refine the project further. In 2024 the Applicant undertook a targeted consultation on changes adopted since the submission of the PEIR. Following that the Transmission Assets application is currently planned to be submitted in Q3 2024. An intensive period of surveys is currently underway, prior to submission. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
3.	**Site-selection update** (presented by [redacted] A summary of the site-selection process was presented, highlighting the key areas in which the Transmission Assets Order Limits has evolved since the submission of PEIR and the previous EWG for onshore ecology and onshore and intertidal ornithology. The onshore export cable corridor has been refined to reduce the number of options. The previous 400 kV grid connection cable corridor has also been refined to a corridor between the onshore substations and the grid connection at Penwortham. A singular site for the siting of the onshore substation has now been selected for Morecambe and further refinement has been made to the Morgan onshore substation including siting and orientation, which considered stakeholder responses. A decision has also been made to use Gas Insulated Switchgear, rather than Air Insulated Switchgear for the Morgan onshore substation, leading to a reduction in the footprint and size of building required.		

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	There has also been refinement of the crossing technologies, including the trenchless techniques to be used at landfall and to cross the River Ribble. It was noted that more details would be provided in the next EWG, together with the biodiversity benefit areas, which have also undergone refinement. No questions were raised.		
4.	**Landfall works (presented by [redacted]** LA outlined that the proposed works at landfall, landward of the MHWS includes site preparation, Direct Pipe Trenchless Installation, Constuction of TJBs, the temporary compound areas and associated temporary accesses, and the associate operation and maintenance working area(s) (i.e. for cable burial and repair in intertidal); and operational access. LA discussed the constraints which have been considered for the proposed construction works. The proposed approach has considered these in order to avoid adverse effects as far as is possible. There are 4 temporary compounds. Compound 1 is sited at the North Beach car park, 300m^2 and will be needed for approximately 36 weeks. Compound 2 to be situated somewhere above MHWS, at the beach area, needed for 48 weeks. Compound 3 will be situated in the sand extraction compound and will be needed for 48 weeks. Compound 4 is situated at Clifton Drive North, needed for approximately 36 months The offshore export cables between the Transition Joint Bay (TJB) working area (within Blackpool Airport) and the beach will be installed using direct pipe trenchless technique. The direct pipe trenchless technique is a hybrid method between micro-tunnelling and Horizontal Direction Drilling (HDD). The direct pipe installation is a fully cased system which reduces risks associated with frack out of drilling fluids or the collapse of the drill hole if unsuitable ground conditions are encountered along the drill profile. TJB and excavation pits will be within the Airport. It will be trenchless from St Annes Golf Club, under the railway and Clifton Drive North, before emerging on the beach at an exit location. The direct pipe will exit on the beach with a minimum offset distance of 15 m from boundary of the Lytham St Annes Dunes Site of Special Scientific Interest (SSSI) but will also be within the inter-tidal area between MHWS and MLWS. The utilisation of Direct Pipe means that the interaction with the beach and ecological impact is greatly reduced in comparison to other trenchless techniques. Pipe thrusting (direct pipe) would be carried out by launching a micro-tunnel boring machine from an excavated launch pit within TJB. Steel casing pipe would be welded in section lengths and connected to the Micro Tunnel Boring Machine (MTBM), and the whole assembly would then be jacked towards the beach exit location by hydraulic rams or thrusters located within the direct pipe entry pit within the TJB area. It is anticipated that the direct		

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	pipe will exit on the beach around MHWS. However, this is subject to further post-consent survey and detailed design. To allow the recovery the MTBM, an exit pit would be required for each circuit, which may require the installation of cofferdams (likely to be 15 m x 5 m). Once the direct pipe ducts/pipes for the offshore export cables have been installed between the entry point at the TJBs at the Airport and the beach exit points, the permanent TJBs will then be constructed within Blackpool Airport. Up to six TJBs are required, one for each cable circuit, i.e. up to four for Morgan OWL and up to two for Morecambe OWL. A TJB consists of a concrete lined excavation into which the offshore and onshore export cables are pulled before the cables are jointed together. Each TJB will contain an underground link box, contained within an underground chamber and will be accessible via an inspection cover at ground level. Each TJB will also include a similar underground fibre optic link box, also contained within an underground chamber with surface level access. Each transition joint bay will include an underground cable link box and fibre optic cable box, both of which will be accessible via an inspection cover at ground level. No questions were raised.		
5.	**Survey update** (presented by [redacted] An overview update on the survey strategy to date was presented. It was noted that due to the iterative nature for the project design, data has been collected outside the current survey area. This data will be used as contextual data but not used when reporting the percentage completion figures. It was noted that the survey completion within the PEIR did not include a number of surveys completed in 2023, due to the reporting cut-off date, but this will be included in the ES. Surveys have continued throughout 2023 and 2024, subject to seasonal constraints and in line within the agreed survey methodology. An intensive survey period began in April 2024, which is now nearing completion. Surveys up to mid-June will be included within the ES, however it was noted that some survey gaps will remain, which have been discussed in previous EWG meetings and within the previously issued survey coverage note. These gaps are both spatial and temporal, but neither are considered to be sufficient enough to affect the confidence of the assessment to be included in the ES. [redacted] **queried the following:** • **Does the EWG agree with the proposed coverage to be included within the ES?** • **Does the EWG agree with the proposed approach where data gaps remain?** • **Does the EWG have any specific points for discussion on the note issued?** No immediate feedback was provided.		

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	No questions were raised.		
6.	**Mitigation strategy summary** (presented by [redacted] MF noted that, although not include in the slide deck, the mitigation hierarchy has been applied to the Project. Avoidance and minimisation of sensitive habitats and designated sites have been delivered through an iterative design and work to micro-site the onshore infrastructure and crossing schedule to accompany DCO application where going under watercourses, hedgerows and treelines. Furthermore, the majority of the Transmission Assets Order Limits: Onshore will be restored and reinstated following the construction period, as a standard across the scheme. MF presented a brief overview of the mitigation, which is currently proposed, following the application of the mitigation hierarchy. This includes the temporary mitigation at Lea Marsh, Moss Side and generally across the Project, as well as permanent mitigation proposed to be delivered at the Morgan substation and generally across the Project. Furthermore, the Project will look to deliver biodiversity benefit for the permanent loss of habitat at Lea Marsh Fields. No questions were raised. A map of the proposed mitigation and biodiversity area was presented to the EWG, with a brief overview of what would be intended to be delivered at each location. No questions were raised.		
7.	**Lea Marsh (Mitigation)** (presented by [redacted] The anticipated measures that are likely to be taken at Lea Marsh to mitigate for disturbance effects upon otters due to cable installation may include: • removal of livestock grazing; • provision of artificial holts; • improvement of reed beds; and • INNS control. These measures aim to improve Lea Marsh for otters, thereby helping to mitigate disturbance by providing areas of habitat with reduced disturbance and alternative resting sites. **Replacement ponds (Mitigation)** (presented by [redacted] The anticipated measures that are likely to be taken at Moss Side and Morgan onshore substation to provide replacement ponds, for aquatic invertebrates, may include: • creation of new ponds one growing season in advance of pond destruction; and • translocation of plant material and water containing aquatic invertebrates from donor ponds to new ponds. These measures aim to provide alternative ponds for aquatic invertebrate communities that would otherwise be lost, thereby helping to mitigate loss of species and habitat.		

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	General (Mitigation) If required, measures are anticipated to be taken within the Onshore Infrastructure Area. These anticipated measures may include the following: • Trenchless techniques, where possible. • Micro-siting. • Habitat restoration. • Artificial flightlines. • Birds and bat boxes. • Implementation of Biosecurity Protocol. • Pre-commencement surveys (*detail later on*). **Lea Marsh Fields (Biodiversity benefit)** The anticipated measures that are likely to be taken at Lea Marsh Fields (arable fields) involve habitat creation to mitigate for permanent loss of habitats as a result of construction of the onshore substations and the associated access roads. Habitat creation will benefit a range of species IEFs. Habitat creation could include: meadow grassland, scrub, hedgerows, ponds, ditches. Other habitat enhancements could include: refugia (log piles/rubble mounds), bat/bird/insect boxes, bee banks, scrapes and/or hummock/hollow topography. There is also an opportunity to improve connectivity to a wider woodland Biological Heritage Site (BHS) adjacent to the fields chosen. These measures aim to provide an overall gain relative to the habitats lost for permanent land take [redacted] **queried:** **1. Does the EWG agree with the proposed measures, and their anticipated effectiveness, at:** **a) Lea Marsh and Lea Marsh Fields;** **b) Moss Side and the onshore substations (Morgan); and** **c) more generally in terms of approach?** **2. Does the EWG have any additional measures or suggestions at each of these locations?** No immediate feedback was provided. No further questions were raised. [redacted] asked, in regards to the pond mitigation, there were six identified with high value for aquatic invertebrates, but what about those lost without high value. [redacted] confirmed there are to be ponds lost which have limited ecological value. However, there will be pond creation for the onshore substations and within the Lea Marsh Fields. [redacted] also confirmed that at the detailed stage more work would be undertaken to micro-site infrastructure to avoid ponds wherever possible. [redacted] confirmed that was understood, but noted that ponds themselves should be considered as an IEF. [redacted]		

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	confirmed this would be the case and noted that more would also be provided for the ornithological mitigation as well. [redacted] asked whether the agricultural perspective had been considered as part of the biodiversity benefit strategy [redacted] confirmed that this had been considered as part of the site selection work undertaken, but also noted that there will be a standalone Land use and recreation assessment within the ES. [redacted] asked whether farmland birds had been considered, [redacted] confirmed this was the case, but this had been covered in the previous ornithology EWG, for which the materials can be reshared. The area identified at Newton-with-Scales being the primary location to deliver mitigation for this IEF. No further questions were raised.		
8.	**Pre-construction survey requirements (presented [redacted]** Further surveys are set to be undertaken prior to the commencement of construction in locations to be determined at the detailed design stage. These are anticipated to potentially include: • Invasive non-native species. • Otter walkovers. • Badger walkovers. • Targeted bat roost / emergence surveys of trees to be lost. No questions were raised. **Monitoring of mitigation areas (presented by [redacted]** All mitigation areas and biodiversity benefit areas are anticipated to be monitored. These measures will likely include: • Otters at Lea Marsh (mitigation) during the construction period and post-construction, if required. • Monitoring of otter populations along key watercourses within the Onshore Infrastructure Area during construction. • Habitats at substations and Lea Marsh Fields (biodiversity benefit) during the construction period and covering up to 25 years beyond construction. • Initial monitoring of restored habitats, including any aftercare measures required in the first 5 years following reinstatement. • Monitoring of bat flightlines in key locations within the Onshore Infrastructure Area and the retained corridors in proximity to the onshore substations during construction and for up to 10 years thereafter. • Habitat quality and aquatic invertebrate surveys at the Moss Side and the onshore substations (Morgan) during the construction and for up to 10 years thereafter.		

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	This will ensure all measures are minimising the impacts of permanent and temporary habitat loss and disturbance on species using the area as the result of Transmission Assets. No questions were raised. 1. [redacted] **asked Does the EWG agree with the proposed pre-construction survey(s), if required?** 2. **Does the EWG agree with the proposed monitoring of mitigation areas, if required?** 3. **Does the EWG agree with the proposed monitoring of biodiversity benefit areas, if required?** **Does the EWG have any additional pre-construction survey(s) or proposed monitoring of mitigation areas or biodiversity benefit suggestions?** No immediate feedback was provided.		
9.	**Next steps** [redacted] confirmed that the meeting minute and slides would be shared following the meeting and requested for comment to be provided in the next three weeks. No further questions were asked. The EWG was ended.		
Summary of actions			
No actions			
Summary of Agreements			
No agreements			

RESTRICTED

Appendix H: Historic Environment

H.1: Historic Environment – Meeting 1

H.1.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Historic Environment EWG Meeting 1	**REV. No.** :	Rev2
Minutes of Meeting Subject	:	Transmission Assets Historic Environment EWG Meeting 1		

MINUTES OF MEETING

MEETING DATE	:	18/01/2023
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

- [redacted]

Apologies:

- [redacted]

Agenda

1. Introductions
2. Overview of the Transmission Assets project
3. Programme
4. Overview of Evidence Plan Process
5. Roles and Responsibilities
6. Overview of Evidence Plan Steering Group
7. Overview of Expert Working Groups
8. Progress to agreement
9. Onshore Historic Environment – Proposed Survey Scopes and Methodology
10. AOB

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting not recorded.		
1.	**Introductions** (presented by [redacted] AR noted that organisations will have received the Terms of Reference (ToR) document for the Evidence Plan (EP) (issued to Steering Group attendees). Hopefully these will have been shared with attendees of this meeting, but they can be shared directly if not.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
2.	**Introduction to the Transmission Assets** (presented by [redacted] **About the wind farms** (presented by [redacted] Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project, located in the east Irish sea. The Morgan Offshore Wind Project is located approximately 22 km (12 nautical miles (nm)) from the Isle of Man and approximately 36 km (20 nm) from the northwest coast of England (when measured from Mean High Water Springs (MHWS)). The anticipated nominal capacity of the Morgan Offshore Wind Project is 1,500 Megawatts (MW). Morecambe Offshore Windfarm Limited (Morecambe OWL), a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd. (Flotation), is developing the Morecambe Offshore Windfarm. The Morecambe Offshore Windfarm is also located in the east Irish Sea approximately 30 km (16 nm) from the northwest coast of England (when measured from MHWS). The anticipated nominal capacity of the Morecambe Offshore Windfarm is 480 MW. **About the Transmission Assets** (presented by [redacted] In July 2022, the UK Government published the Pathway to 2030 Holistic Network Design documents, which set out the approach to connecting 50 GW of offshore wind to the UK electricity network (National Grid ESO, 2022). The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm would work collaboratively to develop their transmission assets for connecting the wind farms to the National Grid at Penwortham in Lancashire. Morgan OWL and Morecambe OWL (the Applicants) are therefore seeking development consent for transmission assets comprising shared offshore export cable corridors to landfall and shared onshore export cable corridors to onshore substation(s), and onward connection to the National Grid electricity transmission network at Penwortham, Lancashire. These are known as the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to as the Transmission Assets). Both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm fall within the definition of a Nationally Significant Infrastructure Project (NSIP), as they exceed the threshold for an offshore generating station of 100 MW, set under the Planning Act 2008, as amended. They therefore require an application for development consent to be made to the Planning Inspectorate. In relation to the Transmission Assets, the Applicants sought a direction from the Secretary of State under section 35 of the Planning Act to confirm that they should be treated as development for which development consent is required under the Planning Act 2008, as amended. A direction was given on 4 October 2022 and the Applicants are now pursuing a single		

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	Development Consent Order (DCO) for the transmission assets for both wind farms. It is anticipated that the Applicants will apply for a DCO which authorises two coordinated but electrically separate sets of transmission works (for example, where each offshore wind farm would have its own transmission cables and substation infrastructure).		
3.	**Programme and key milestones** (presented by [redacted] **Key Dates** (presented by [redacted] The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants will progress with consenting and both offshore and onshore surveys, noting that the Applicants have already commenced a number of terrestrial ecology surveys and offshore surveys which have fed into the ongoing site selection work. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. As a result we are starting to set up the EWGs whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will afford feedback on the PEIR and project as a whole. We will use this feedback to develop and refine our assessments and refine the project further. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest we are anticipating earliest construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
4.	**Overview of the Evidence Plan Process** (presented by [redacted]) **EPP** AR provided an overview of the EP process. The proposed approach has been developed following the Planning Inspectorate and Defra guidance and recent guidelines produced by Natural England. The EP is a mechanism to agree upfront what information the Applicants need to supply to the Planning inspectorate Examining Authority as part of a DCO application. To demonstrate information is appropriate and that the Applicants have endeavoured to agree this with the key parties. The EP process has historically been focused on the Habitats Regulations Assessment (HRA) process. However, in line with recent best practice, the Applicants propose to extend this to include the EIA process, as set out in the EWG slides later in the presentation.		

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	Separate EP process for the Transmission Assets to those of the Morgan Generation and Morecambe Generation assets.		
5.	**Roles and responsibilities** (presented by [redacted] The EP process is led by the Applicants. The responsibility for updating the EP is with the Applicants, with feedback from the relevant consultees. Need to confirm the ToR has been distributed within organisations and if not this can be shared. The Applicants have put together a broad plan for engagement with the steering group, noting that this is subject to progress based on how the project progress. [redacted] If anyone has not seen this we can send this across to you. Please do let us know.	**Action: Please request sight of the ToR documents if you do not already have this.**	
6.	**Overview of Evidence Plan Steering Group** (presented by [redacted] The purpose of the Evidence Plan Steering Group is to monitor progress of the EP. Meetings will provide key project updates and will include an update on timescales to ensure stakeholder resourcing during these periods are managed appropriately and forward planned. The EP Steering Group will guide and inform the EP process. The group will meet at key milestones during the project program for Transmission Assets. The initial EP Steering focussed on the ToR and was held on the 10th January 2023. The next EP Steering Group meeting will discuss the cable route selection process. All organisations in this group meeting will be sent a Microsoft form to collect availability for the second EP Steering Group. The third EP Steering Group meeting will be timed around the PEIR. The Applicants can propose dates, however we are open to suggestions on timings. Topic specific issue will be discussed within the EWG meetings.		
7.	**Overview of identified Expert Working Groups** (presented by [redacted] [redacted] gave an outline of the EWGs. Slide deck sets out EWGs for onshore and offshore topics. There are certain topics which are not included here (e.g. shipping and navigation, commercial fisheries) as these will be part of a separate, dedicated consultation process. The aim of these EWGs is to discuss and agree (where possible) key elements of the EIA and HRA during the pre-application period. With the overall aim of having a lot of the ground work completed on the Statements of Common Ground (SoCG), so the Examination is only focussing on the key issues. Slides set out the broad approach to agreement in the EWGs and key areas where we are looking to get agreement on.		

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	These are the broad headings around which discussions and consultations (e.g. S42 consultation) will be focussed. Forming the basis of the SoCG. Slides show the EWGs and the key consultees to be involved in each EWG. First EWGs will be established in early 2023. Some of the topics will be combined into one meeting and discussion of the scoping opinion will be undertaken within EWG meetings in an effort for efficiency. After the initial EWGs we are looking to discuss project updates, the ongoing baseline work and survey findings. We are looking to build on the approach and working for Transmission Assets in terms of methodologies etc. The ToR includes a broad approach to the EWG meeting. However, some topics are likely to involve more meetings and consultation than others. This will be topic dependent.		
8.	**Progress to agreement** (presented by [redacted] The EP process is iterative. The Applicants will agree as much as possible during pre-application phase. Meetings will be held at key stages for each topic. The idea is for consultees to provide feedback as early as possible. Information that is considered key for any upcoming EWG will be shared no less than two weeks prior to the agreed meeting date. Broad approach to EWGs: • Information circulated to EWG minimum two weeks ahead of meeting. • Meeting is held with attendees prepared to comment on materials provided. • Full meeting minutes will be taken agreement logs will be compiled where matters are agreed, and after each meeting the minutes and agreement log will be circulated two weeks after the meeting. • Then minutes will be agreed, with comments from stakeholders two weeks after issue of minutes. The agreement log will be updated and ultimately appended to the DCO application. Materials for the EWGs will be issued out with the correct key contacts. If information is comprehensive, the timescale may be longer. Further information can be found in the ToR.		
9.	**Onshore Historic Environment** (presented by [redacted]) **Onshore Cables and Substations** [redacted] presented the Transmission Assets Scoping Boundary and mentioned this would be for discussion in future meetings. Shows indicative areas of searches of onshore cables and substation sites, which are ongoing.		

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	Indicative Meeting Programme 1. Introduction and description of EWG process, agree study areas and discuss the methods and proposed locations for geophysical survey and geoarchaeological deposit modelling. 2. Discuss the areas of potential importance and the known heritage assets that may be affected by the Project, discuss the potential fieldwork requirement for the geoarchaeological deposit modelling and discuss and agree the methodology for assessing impacts 3. Discuss and agree the areas to be included in the trial trenching and discuss and agree the format of the WSI. 4. Discuss the findings of the trial trenching and agree areas where further (pre-construction) investigations may be required. **Overview of EWG Discussion** Indicative remit and inputs for the Onshore Historic EWGs going forwards: • Baseline characterisation including agreement of study areas. • Potential impacts on historic environment receptors (including protected sites). • Approach to surveys, including geophysical survey, trial trenching and core samples. • Data analysis methodologies. • Assessment methodologies. • Avoidance, mitigation and management measures (mitigation hierarchy). [redacted] - Some baseline work and HER data requests were undertaken previously at the stage prior to the joining of the two projects. At this time a walkover was completed but this may need to be revisited due to the increased area. We would like to discuss the study area for which we will be requesting the HER data for. The Transmission Assets Scoping Boundary is quite a considerable area of land. We had proposed to request data for the entirety of the areas within the PEIR boundary plus a 250 m buffer. The comments on the Scoping Report indicated that Historic England would like this area to include for a 500 m buffer. Is that correct? [redacted] – Stated that a 500 m buffer was requested in the EIA Scoping Opinion. [redacted]– Yes. HE felt the number of known sites within the landscape of the lowland north-west and in contrast to other areas of the country, sometimes a limited study area does not pick up much detail. Only in relation to predicting archaeological potential. This approach has been undertaken on other schemes and a common comment. Balance needs to be struck with reasonable amount of		

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	data to assess and analyse. If it became apparent that considerable data was available, the buffer may be reduced. Designated heritage assets in the more developed areas are unlikely to be relevant and would not inform archaeological potential. Whereas it is more relevant to the more undeveloped rural landscape, where assets are sparser. Hence the need to increase the buffer zone. [redacted] – Even with a large study area, there may not be a huge level of information due to the lack of assessment done to date. Topographic survey may be a more useful means of gathering data and identifying areas of more archaeological potential and reduce the areas of interest. Prehistoric period was very wet and so more lowland areas are unlikely to result in high levels of data returned. [redacted] – A number of schemes in low lying landscape prehistoric sites can be identified by free draining sand and gravel ridges / mounds. Targeting of these are simpler ways of identification. [redacted] – Applicant to use study area with 500 m buffer. Review the data and confirm what additional HER data required and request this. If this is too much information, we will take a more selective approach. But can be iterative process once we are able to complete the mapping. **Agreement – Study area for collection of HER data to be a 500 m buffer around PEIR boundary. Data to be filtered as appropriate. To be discussed as subsequent meetings.** **Proposed Survey Scopes and Methodology – Geophysical Survey** Magnetometer survey is proposed for all land within the PEIR boundary where the land use is suitable for this technique and where the ground does not represent former wetlands that have been subsequently drained. An initial phase of geophysical survey will be undertaken within the defined cable corridor west from the landfall zone to a point just to the north of Freckleton. Land to the east of this point will be subject to geophysical survey as soon as there is clearer definition of scheme design within the substation option zones – this may follow on as part of the initial phase but could comprise a second phase (and may not be available for PEIR). It may be necessary to engage more than one contractor for the geophysical survey. [redacted] - Magnetometer surveys in areas where the land and land use is suitable for such surveys to be completed. An initial phase of geophysical survey will be undertaken within the defined cable		

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	corridor west from the landfall zone to a point just to the north of Freckleton. This approach is due to a more defined cable route within this area. The wider areas of potential substation option areas are not yet defined enough for such surveys. Conversations with contractors are ongoing. We will share the areas for the proposed geophysical survey in the initial phase with all those that form part of this EWG. The same process will be adopted for subsequent surveys once other areas of the route are more defined. It may be required to engage with multiple contractors due to availability. Presented a general approach. Are there any comment on this so far? Are you in agreement in terms of the magnetometer approach, or should this be teamed with other methods as well? [redacted] – Geophysical surveys in Lancashire is not reliable as it does not pick up everything. Surveys IN Kirkham (north of Freckleton) failed to pick up a number of hearths and kilns. We do use it but they need to be taken with a pinch of salt. [redacted] – Understood. Any alternative approaches that would be better or run in unison? Geochemical? [redacted] – Not tried anything else (geochemical). Hit and miss to be honest and therefore the results would not be taken as gospel should surveys not identify anything. [redacted] – Do you think it would be more successful if we can get onto theses free draining sandy ridges highlighted earlier? [redacted] – Do it in conjunction with topographic surveys. Focus surveys on areas where the topographic information indicates areas that are more suitable for settlement. [redacted] – That appears to indicate that we should focus on areas of free-draining sands? As these areas already have an enhanced potential for prehistoric settlement and would be more responsive in terms of geophysical. [redacted] – Those areas would want to be trenched anyway regardless of the geophysical, so doing in conjunction would not be more work. **Proposed Survey Scopes and Methodology – Geoarchaeological Deposit Modelling** It is acknowledged that geoarchaeological deposit modelling may be required at selected locations as part of the baseline characterisation. This is proposed for areas of former wetlands (e.g. Lytham Moss) and possibly areas of former tidal mudflats.		

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	A suitable subcontractor will be engaged to undertake the geoarchaeological deposit modelling, including the initial identification of areas where this work will be required. These areas will then be agreed with the relevant stakeholders. Where required, the assembly of data for the geoarchaeological deposit modelling may include fieldwork such as the extraction and analysis of core samples. The methodologies for any fieldwork undertaken for the geoarchaeological deposit modelling will be agreed in advance with the relevant stakeholders. [redacted] – Scoping Boundary includes Lytham Moss and other areas of former wetlands (some not yet identified) and areas that form tidal mudflats. Also, on the north side of the River Ribble there is a north channel in the Preston Area? Magnetometer not of use in these areas and therefore we will look to complete archaeological deposit modelling at these locations to identify archaeological potential (to be done by contractor). There will be an initial phase to identify the areas over which this needs to be done and we would look to agree these. We will seek to agree these areas with you and what needs to be done in terms of fieldwork to produce the model. Initial conversation with some contractors. We understand issue of the wetland areas. Ideally aim to go around them but dependent on other constraints encountered in the site selection process. We would like to develop a useful programme of fieldwork to enable modelling. Initially just trying to identify areas that need to be included in this. Have you already got any examples of modelling already done across the tidal mudflats either side of the estuary behind the sea wall? [redacted] – Only modelling has been undertaken on quarry on the River Ribble within Preston on the former location of the River. It helped home in the investigation which identified prehistoric sand bar and settlement. [redacted] – Used for predictive modelling for location of archaeology in the former wetland areas. Are we taking the correct approach to identify the correct areas? Then seeking to agree this as part of the EWGs? [redacted] – Yes useful tool as we are interested in the interface between dry and peatland. We are interested in the date of peat. [redacted]- Defining the edges is quite important, but likely only to be done once some fieldwork has been completed. [redacted]– Overlap with the topographic surveys and use this to identify the areas suitable for the geophysical surveys.		

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	[redacted] – Correct. Topographic surveys are relatively straight forward so useful to do in conjunction. Are you happy with this approach Pete? [redacted]– Yes happy with what Doug said and agree with the approach of archaeological deposit modelling. [redacted] – We need to engage with regional science advisor to get this conversation moving. [redacted]– Flag this with officer (Sam Row). All data together allows for a much better understanding of the archaeological potential. This will be of far more value that the HER data in isolation. [redacted] – Share information gathered from Windy Harbour. That really sets out the approaches to begin with. Once we have some data from the desk-based work and geophysical survey we will need to reengage again to determine other field work (such as trenching). Want to get as much geophysical surveys done ahead of the PEIR to include in the baseline. We would then look to agree and undertake trial trenching ahead of the ES. For the geoarchaeological deposit modelling, we want to get the desk-based work complete and agreement approach and methodology of the fieldwork. This would ideally be complete before PEIR but this will likely be delayed due to access and crops ahead of the ES. Want to include method and location of activities in the PEIR. [redacted]– Understood and agree with approach especially given the constraints. [redacted] – Hopefully you are happy with the general approach. Please do let us know if you have any questions on the onshore heritage environment. Based on the refined locations for the onshore elements of the Transmission Assets, the study area for the assessment of historic environment impacts (the historic environment study area) will focus on areas landward of Mean Low Water Springs (MLWS) where potential impacts are most likely to occur on historic environment receptors. [redacted]– No comments. Happy with the process. [redacted] – Second that. [redacted] – We will be in touch to discuss data requirements shortly.		
10.	**Any other Business and Close of meeting** (presented by [redacted]) Meeting minutes to be shared in two weeks, could these be commented on and responses returned in the following two weeks.		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Second EWG meeting March. Information to discuss the areas for which geoarchaeological modelling may be required and the data collated to date and the methodology going forward.		
Summary of Actions			
A1.	N/A.		
Summary of Agreements			
Ag1.	Study area with a 500 m buffer to be used for HER data collection.		
Ag2.	Geoarchaeological deposit modelling in conjunction with topographical surveys in order to identify areas of interest.		

H.2: Historic Environment – Meeting 2

H.2.1: Meeting minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

MORECAMBE

EnBW Partners in UK offshore wind

bp

Minutes of Meeting Number	:	Transmission Assets Historic Environment EWG Meeting 2	**REV. No.** :	Rev02
Minutes of Meeting Subject	:	Transmission Assets Historic Environment EWG Meeting 2		

MINUTES OF MEETING

MEETING DATE	:	09/08/2023
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

- [redacted]

Apologies:

- [redacted]

Agenda

1. Introductions.
2. Site selection update.
3. Non-statutory consultation.
4. Programme update.
5. Assessment update:
   - Baseline and preliminary findings;
   - Methodology for construction scenarios;
   - Approach to cumulative assessment
   - Initial identification of mitigation; and
   - Approach to cumulative assessment.
6. Next steps

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introduction: (presented by [redacted]** **[redacted] provided a brief overview of the last EWG for the onshore Historic Environment, which took place on 18 January 2023. It was highlighted that there were no**		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	outstanding actions from that meeting. [redacted] welcomed introductions from all attendees, prior to starting the EWG presentation and running through the agenda.		
2.	**Programme Update** (Presented by [redacted]) [redacted] presented the timeline of key events for the programme, including the following key submission dates. • Autumn 2022 – Submission of Transmission Assets Environmental Impact Assessment (EIA) Scoping Report and receipt of Scoping Opinion. • Spring 2023 – Non-statutory Consultation. • Autumn 2023 - Submission of Preliminary Environmental Information Report (PEIR). • Summer 2024 – Application submitted for Development Consent Order (DCO). • 2026 – Earliest anticipated commencement of construction. • 2028/29 – Expected start of commercial operations.		
3.	**No-Statutory Consultation 2** (presented by [redacted]) [redacted] provided details of the non-statutory consultation that has taken place. This consultation was undertaken during the same period as both generation assets projects (Morgan Offshore Wind Project Generation Assets and Morecambe Offshore Windfarm Generation Assets), between April and June 2023. The link to the consultation website was highlighted, to see further details. This link will be accessible within the slides to be shared alongside the meeting minutes. The second round of non-statutory consultation focussed on the indicative: • landfall and onshore export cable corridor (and associated temporary working areas); • onshore substation search areas; and • 400 kV grid connection search area. [redacted] summarised the feedback received from the 2023 non-statutory consultation. This included the key emerging themes from the feedback.		
4.	**Site Selection** (presented by [redacted]) [redacted] discussed the point at which the project is within the site selection process. The previous red line boundary, presented during the previous EWG for onshore historic environment, was compared with the refined boundary to demonstrate the changes that have been made, resulting from the feedback from consultation and assessments. The refinement of the potential onshore substation sites was also discussed.		

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	[redacted] noted that whilst the refinement process is still ongoing, the preference for siting is around zone 1, as presented within the slides. This was based on a broad range of environmental considerations		
5.	**Historic Environment Baseline** (presented by [redacted]) [redacted] provided a description of the baseline work that has be carried out to-date as part of the PEIR, with an overview of the areas surveyed. Following this, [redacted] explored the surveys undertaken in more detail. **Geophysical Survey** – [redacted] noted that the geophysical survey have been partially completed within the export cable corridor and are ongoing otherwise. [redacted] detailed the geophysical surveys undertaken to date and highlighted the future surveys to be carried out as the next steps – this includes surveys on the 400 kV route of the Transmission Assets. The key results of the surveys were presented, including the anomalies that could indicate potential archaeological, agricultural, natural, and undetermined origins. An extract (aerial photo) from the results of the geophysical survey work was presented to show what sort of areas the trial trenching will target to confirm whether areas are of historical value or not. **Intertidal Walkover Survey** – The intertidal walkover survey has been undertaken, in accordance with the Written Scheme of Investigation. [redacted] noted that the sub-contractor, Oxford Archaeology, did not record any significant archaeological remains or peat deposits within the survey area at the time of the survey. Additionally, the walkover survey explored previous borehole work to gain more information regarding peat in the area. It was concluded that there was peat, however, this was 11 m below ground. **Geoarchaeology Survey** – [redacted] provided an overview of the baseline results from the Geoarchaeology Desk Based Assessment (DBA) and confirmed this can be shared with stakeholders in due course, with intention to do this prior to PEIR submission.		
6.	**Historic Environment Methodology** (presented by [redacted] [redacted] noted that the assessment based upon a worst-case scenario for the historic environment chapter, thus highlighting the key construction scenarios that have been taken forward in the assessment. It was presented that open cut trenching across the intertidal zone represents the greatest area of disturbance and, therefore, the greatest potential for impacts on buried archaeological remains and deposits of geoarchaeological interest. Furthermore, the largest footprint and greatest number of buildings at the onshore substations represents the		

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	greatest potential for impacts on buried archaeological remains and deposits of geoarchaeological interest, the setting of historic assets and on the on the character of the historic landscape. In terms of duration, the maximum design scenario is represented by sequential construction of the Transmission Assets (rather than concurrent construction), as this represents the longest overall period.		
7.	**Historic Environment preliminary conclusions** (presented by [redacted] [redacted] presented the assessment findings from the environment assessment for the historic environment chapter, noting that based on data collected so far, there would no be significant effects. However, [redacted] highlighted that the assessment does not deal with buried archaeology yet as more data and survey work is required. This will be progressed for the development of the ES, but findings can be shared prior to this from the DBA work completed to date.		
8.	**Cumulative Effects Assessment** (presented by [redacted]) [redacted] highlighted that the only cumulative projects are the Morgan and Morecambe generation assets, which do give a greater effect as they are more visible. The cumulative effect associated with the impact of the offshore substation platforms and Morgan offshore booster station on above ground historic assets as a result of change within their setting has been considered. No other cumulative applications, as currently identified, were considered likely to give rise to significant effects.		
9.	**Next Steps** (presented by [redacted]) MR worked through the next steps, including the completion of geophysical surveys and sharing the baseline findings. It was noted that the survey results are currently going through internal review, and can be provided with the Statutory Consultees following this. MR noted that once all parties have reviewed the geoarchaeological desk-based assessment findings, should there be a need, core sampling locations can be agreed as part of the next steps.	**Action 1: The Project to send baseline survey findings reports to the consultees (HE and Lancashire County Council) once available.**	**Ongoing**
10.	**Questions and Answers:** [redacted] welcomed questions and queries from the attendees of the EWG. [redacted] asked if they would be able to see the copies of the WSIs for the Geoarchaeological survey. [redacted] noted this and agreed that these will be sent along with the meeting minutes. This would include the Geoarchaeological WSI as well.	**Action 2: Final WSIs for survey work to be issued to the consultees (HE and Lancashire County Council) alongside the meeting minutes.**	**22/08/2023**

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	[redacted] wanted to refer back to the geophysical survey results, with regards to the northern option of the onshore export cable at Higher Ballam. He noted that one of those sites (LA41) is a reasonably sized area of Neolithic material (arrow heads, etc.), however, no survey work has been carried out. Thus, [redacted] suggested that there would need to be magnetometer surveys completed here gain further information. DM provided a response, as this site has now been evaluated due to a solar farm planning application – results show they only found a single cremation with no other findings. It was agreed that [redacted] would provide the report, if available. MR could use the report to understand whether geophysical surveys and further trenching would be required, or not. **POST MEETING AMENDMENT: The solar farm planning application (planning application reference: 21/0904) historic environment survey work did not overlap the site of interest discussed in during the EWG (LA41). As such, this information does remove the need to complete magnetometer surveys in this area.** [redacted] asked whether the proposed solar farm is going ahead. [redacted] agreed to pass any information on regarding details of the planning application. [redacted] stated that the Project would look to agree trial trenching for those areas which we have geophysical survey results for. Then following further results, RPS would look into arranging further trenches which can be discussed and agreed. This will not be a single phase of trial trenching, but an iterative process to ensure it can be progressed, whilst awaiting further surveys.	**Action 3: DM to share the survey work completed and application details for the solar farm development, at Higher Ballam, in proximity to the LA41 archaeological finds.** **Action 4: The Project to share draft WSI and proposed locations for trial trenches for agreement with consultees (HE and Lancashire County Council).**	**09/08/2023** **Ongoing**
Summary of Actions			
A1.	The Project to send baseline survey findings reports to the consultees (HE and Lancashire County Council).	**The Project**	**Ongoing**
A2.	Final WSIs for geophysical surveys and geoarchaeological desk-based assessment work to be issued to the consultees (HE and Lancashire County Council) alongside the meeting minutes.	**The Project**	**22/08/2023**
A3.	[redacted] to share the survey work completed and application details for the solar farm development, at Higher Ballam, in proximity to the LA41 archaeological finds. Discussion will then be had on the need for further surveys to be completed by the Project.	**DM (Lancashire County Council)**	**09/08/2023**
A4.	The Project to share draft WSI and proposed locations for trial trenches for agreement with consultees (HE and Lancashire County Council).	**The Project**	**Ongoing**

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A5.	The Project to share draft WSI and proposed locations for trial trenches for agreement with consultees (HE and Lancashire County Council).	**The Project**	**Ongoing**
Summary of Agreements			
Ag1.	Consultees agreed with the proposed approach to agreeing trial trenching, which will be agreed in sections and geophysical surveys are progressed.	**The Project**	**Ongoing**
Next Steps			
1.	If considered necessary, following the review of baseline survey findings reports, the Project to issue proposed locations for core samples for all parties to agree.	**The Project**	**Ongoing**

H.3: Historic Environment – Meeting 3

H.3.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Historic Environment EWG Meeting 3	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Transmission Assets Historic Environment EWG Meeting 3		

MINUTES OF MEETING

MEETING DATE	:	08/02/2024
Az-MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted] (RPS)
ISSUED BY	:	[redacted] (RPS)

Attendees:

[redacted]

Apologies:

[redacted]

Agenda

1. Introductions.
2. Programme update.
3. Statutory consultation.
4. Site selection update.
5. EWG 1 and 2 recap.
6. Agreement log review.
7. Section 42 responses.
8. Survey update (and strategy).
9. Commitments and mitigation.
10. Wider application documents if relevant.
11. Next steps (next meeting)

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by [redacted] Welcome and introductions by all.		
2.	**Programme update (presented by** [redacted]		

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	The Applicants undertook pre-scoping engagement in 2021 and early 2022. The Scoping Report was submitted to the Planning Inspectorate in October 2022. A Scoping Opinion was received in December 2022. Following the receipt of the Scoping Opinion, EWGs were setup to work through the responses. The EWG process has continued throughout the production and submission of the PEIR and will continue through to the submission of the application. The Applicants published the Preliminary Environmental Information Report (PEIR) in autumn 2023, with statutory consultation undertaken later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) afforded feedback on the PEIR and project as a whole. The Project is using this feedback to develop and refine assessments and the project further. The Applicant are currently undertaking targeted consultation on changes adopted since the submission of the PEIR. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029. **Project update (presented by [redacted]** PEIR was submitted on the 12 October 2023. Statutory consultation took place between the 12 October and the 23 November 2023. The Applicants are working through the feedback received as part of the statutory consultation and are presently preparing the Environmental Statement submission for Q3 2024.		
3.	**Statutory consultation [redacted]** A summary of the statutory consultation that has taken place since the publishing of the PEIR was presented. Key stakeholders were made aware of the consultation period by way of letter and emails. Consultation launched on the 12 October 2023. In person events were held, as well an early evening webinar with elected representatives. The statutory consultation was focussed on the PEIR and to afford stakeholders an opportunity to provide detailed responses for the Applicants to consider before the submission of the ES. **Feedback from statutory consultation**		

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	An overview of the feedback received was presented, including the main themes identified such as the routing and the onshore substations. No questions were raised.		
4.	**Site selection update (presented by [redacted]** At landfall open cut trenching and HDD (or other trenchless techniques are being considered). There is a commitment (CoT02) that was included in the PEIR and will be included in the ES that certain features such as A, B and C roads, named EA main rivers and all railway crossings will be crossed by HDD (or other trenchless techniques). An overview of the trenchless techniques likely to be implemented for the Transmission Assets was presented, with an acknowledgement that ongoing engineering feasibility studies would dictate the most suitable technique for each area proposed. More detail was provided on Horizontal Directional Drilling and the stages were described. A second option was presented, direct pipe installation, which utilises a micro tunnel boring. It was noted that this is only an option for the River Ribble crossing and at the landfall. **Landfall and onshore export cable corridor** An overall summary of the Transmission Assets was provided for those who had not been present at previous EWGs. [redacted] presented the refinements along the 275 kV and the reasoning behind these amendments, or, where optionality has been retained for ES. The onshore export cable temporary working corridor has been reduced from 120 m in width, to 100 m. As part of this exercise, the Applicants have utilised the principles set out within the site selection chapter at PEIR to microsite the onshore export cable corridor. This has included greater distances from important ecological features. Survey data collected to date was also utilised as part of the refinement. A comparison of the onshore export cable corridor presented at PEIR, against the ES refinement, was shown and the key differences were discussed. The reasoning behind removing the onshore export cable corridor option 2 (south) was provided. One of the key changes to the onshore export cable corridor (which goes outside of the Transmission Assets Red Line Boundary from PEIR) included in the targeted consultation was highlighted. The reasoning behind the introduction of this option was discussed, which focussed on feedback		

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	provided by landowners in proximity to the proposed changes and ongoing engineering feasibility studies for the suitability of trenchless techniques at this location. **Onshore substations** Feedback on the onshore substations mainly focussed on the proximity to sensitive receptors. Refinement has since afforded greater distances between the Morgan onshore substation and these sensitive receptors, as well as the opportunity for more screening. There is no longer optionality with regard to the Morecambe substation site. The decision was made to go with the southern substation site as the favoured option for Morecambe onshore substation for a number of reasons. This Morecambe southern option was at a greater distance from human receptors and the temporary compound could be located outside of Flood 2 and 3 zones. Selection of the Morecambe South option also allows the use of a construction access from the A854 Preston New Road. This has the advantage of splitting the construction traffic between the A583 and A584 for each substation site, allowing for better distribution of the construction traffic and therefore negating a greater impact on singular roads. **400 kV grid connection cable corridor** The refinement of the 400 kV grid connection cable corridor was presented. A cable route has been identified within the 400 kV grid connection cable corridor search area which runs from the substations to the National Grid at Penwortham. The PDE has been further refined with the temporary working width of the 400 kV cable corridor reduced from 96 m to 76 m. The same principles as for the onshore export cable corridor (as presented in Volume 1, Chapter 4: Site selection and consideration of alternatives) were applied to avoid sensitive receptors as far as is feasible. Engineering feasibility surveys are ongoing for the crossing of the River Ribble. At this point in time, three different techniques are being investigated to understand the most appropriate method to install the cables across the River Ribble. These methods include conventional tunnel, direct pipe or micro tunnelling methodologies. The 400 kV grid connection cable corridor splits into two separate routes in proximity to Penwortham substation. This is to accommodate the two separate grid connection points into the substation allocated by National Grid.		
5.	**EWG 1 and 2 recap** (presented by [redacted])		

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	[redacted] ran through the actions completed since the EWGs completed to date. An update was provided on the WSI which is out with stakeholders, including the intentions of the meeting to date.		
6.	**Section 42 responses** (presented by [redacted]) [redacted] provided an overview of the S42 responses to date and highlighted the intention to respond to these in within the ES. Particular attention was drawn to the additional information Freckleton provided on the Quaker Burial Ground. [redacted] confirmed there was an awareness of the burial, but not of the additional land parcels on the tithe mapping. The project intends to avoid this with the implementation of trenchless techniques. [redacted] queried [redacted] on the feedback provided on the desk-based assessment (DBA). [redacted] flagged that there was a lost opportunity to work more closely on the DBA as this was noy shared with [redacted] ahead of the submission of the PEIR. Action to work more closely with [redacted] on the redrafting of the DBA going forward. No need to share specification for the DBA as the work has already been done. [redacted] discussed the queries on the intrusive works proposed within the intertidal area. There are considerable constraints completing intrusive surveys in this area due to the proximity to designated sites. Work is ongoing to confirm the final surveys proposed, but stakeholder will be informed of this as part of the ongoing EWGs. [redacted] raised the query from Historic England (HE) on the sensitivity of Grade II listed buildings. It was flagged the assessment was compliant with the necessary policy. [redacted] confirmed this was not a material issue, but more of note for the assessment. It was a comment that was made for context, but does not require any amendment to the assessment approach. [redacted] confirmed he supported the approach taken to date in the historic environment chapter and associated annexes. There were a number of comments on the visual impacts for works in proximity to works around Penwortham substation. [redacted] confirmed this will be considered in the ES where required, but noted the Transmission Assets does not propose to add much in the way of a change to the existing. [redacted] raised the points made on the potential for Roman Roads from Kirkham to Marsh Coate as part of the S42. [redacted] confirmed this is only a hypothesis and that if this road was to be encountered, there would be an opportunity to record it. [redacted] noted that it should be picked up in any survey work in any case and confirmed this would not be a considerable	**[redacted] work more closely with [redacted] on redrafting of the DBA.**	

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	constraint and could be dealt with by sectioning in two or three places it is being crossed multiple times. Any impacts could be mitigated with a standard approach.		
7.	**Survey approach** (presented by [redacted] A plan of the magnetometer surveys was presented, which included the complete scope as well as the areas completed and for which trial trenches have been proposed. [redacted] confirmed the areas which have been added since the submission of PEIR will be included within the survey scope. [redacted] confirmed that this is ongoing, and the status of the work completed to date. This is the reason why the trial trenches will come through in a phased manner. A flow chart of the survey programme proposed for the Transmission Assets was presented. [redacted] discussed the options for survey and the intended programme. [redacted] confirmed that since the last EWG, the geoarchaeological work has been coupled with the trial trenches where possible. [redacted] confirmed this would be done either at the side, or beyond the base of the trench. It simplifies the licenses an reduces the disruption to landowners. This allows for the characterisation of the deposit sequence in areas of interest. Confirmed this is for all trenches going forward. [redacted] queried whether the GI works and deposit modelling had been completed since the submission of the PEIR as this will guide the geo-archaeological sampling. [redacted] also noted that there are areas of deep alluvium and the BGS borehole data is lacking. [redacted] confirmed this is the work we are proposing to do now as that will help with the deposit modelling, this has not started as the BGS data is lacking and not adequate to do modelling from (in particular in the 440 kV corridor). [redacted] also confirmed that there is more boreholes data that expected in terms of overall coverage, so this will be considered. [redacted] discussed the options to either use a core sampling approach which is one every 100 m or whether electromagnetic surveys would be a better approach, which would afford a more targeted plan of core sampling and represent a more iterative approach. [redacted] noted that we will be in a better position to decide on approach once trial trenching has begun. [redacted] confirmed the expectations in terms of what would be included in the ES. An update to the DBA is ongoing, noting that liaising with [redacted] will be utilised. In addition, some reports will be ready earlier such as the DBA so these would be able to enter the review cycle sooner. [redacted] confirmed that there are considerable constraints being faced in completing the intrusive surveys for inclusion within the ES such as the ground conditions and weather. It is likely that there will need to be interim reports submitted alongside the ES.		

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	[redacted] asked whether the geophysical survey report will be split or one report. [redacted] confirmed that there will be a single report, but it may be only inclusive of the work completed prior to May. [redacted] requested whether this can be included in the HER instantly. [redacted] confirmed this can be included as soon as the consultation has been commenced and in the public domain. [redacted] also flagged that there has been data collected for the PEIR which now sits outside the area of interest of the Transmission Assets, so this will need to be shared separately for the HER. [redacted] agreed with this approach. [redacted] stated that the project would liaise with the contractors to confirm there can be a single package of the digital data.	**PEIR data to be released so this can be added to the HER. ES data to follow once consultation has commenced.**	
8.	**Commitments and mitigation** (presented by [redacted]) An overview of the commitments ad mitigation as included within the PEIR was presented, [redacted] drew attention to the outline onshore WSI which will be submitted alongside the applications. [redacted] confirmed that they would expect that to be included within the consultation. [redacted] acknowledged this. [redacted] then discussed how historic environment will be considered within the landscape management plan. [redacted] flagged the tunnel heads which have since been included in the assessment of setting of heritage assets (in addition to the substations) will be included. This will be sufficiently considered in the relevant management plans. [redacted] confirmed that the offshore elements would no longer need to be considered as was done for PEIR, due to the removal of the offshore infrastructure. There were no objections to this.	**[redacted] to be included within the consultation of the outline onshore WSI.**	
9.	**Agreement logs** (presented by [redacted] [redacted] noted that following discussion earlier in the EWG, specification is no longer required for the DBA. Confirmed by [redacted] With regard to survey coverage, [redacted] noted that we are awaiting feedback from stakeholders. No comments raised by attendees. For trial trenching, [redacted] confirmed that we will await feedback on this. Additional trial trenches will be included and issued as the surveys are completed. Looking at the request for a proportionate walkover, [redacted] raised the comment flagged on this as part of the S42. [redacted] confirmed there is a need for the walkover as this may lead to a need to alter the trial trench locations based on walkover findings. [redacted] noted that the geophysical (magnetometer) survey does work does double as a walkover. [redacted] confirmed that this is fine as long as it can be evidenced that the team on ground has had a look around, but there will be a need for a walkover to be completed		

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	where no other surveys have been undertaken. [redacted] also acknowledged that there will be gaps, but as much walkover should be completed as possible. [redacted] noted that they would like to see a coverage map of the areas where a walkover has been completed.	**RPS to provide a map of magnitude survey coverage to highlight where gaps may be present.**	
10.	**Wider application document** (presented by [redacted]) These were discussed as part of the commitments and mitigation. No further comments raised.		
11.	**Next steps** (presented by [redacted]) [redacted] noted that we are waiting for comments back from EWG on the WSI and the associated trial trenching locations that were sent out prior to this EWG. If there is a need to, we will take any changes to the contractors to ensure this is included into the quoted works. Following on from the trail trench discussions, [redacted] noted that additional trial trenches proposed will come through as an addendum rather than issue of a full WSI. [redacted] highlighted that we are awaiting comment on the survey coverage which has been proposed during the EWG. The intention is to include as much as possible, but comments from the EWG on this would be much appreciated. Anything that cannot be done, we would be looking to include post consent. No comments raised in the EWG.		
12.	**Questions/ AOB** [redacted] requested any further questions. The need for the next EWG was flagged for the end of March to discuss the progress made with the surveys completed to date. [redacted] noted that they were keen to be included in the trial trenching process and signing these off. [redacted] flagged that they would not be looking to view blank trenches in person unless they are all blank or blank trenches are located in areas where LCC would expect something to be found. In this case there may be a need for these findings to be confirmed. [redacted] also noted that in some cases information such as digital photographs will be sufficient to sign-off and backfill some trenches. [redacted] followed up by noting that the trenches cannot be kept open at the expense of landowner's disruption. [redacted] flagged that there are multiple people (some in the local area) to check trenches ahead of them being infilled. Coordination is possible to minimise landowner disruption. [redacted] confirmed the team would be moving locations based on access and	**Client team to issue the PEIR Transmission Assets Redline**	

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	not simply starting at one end of the cable corridor and finish at another – it is a more opportunistic approach regarding land access. [redacted] requested a .shp of the Project to be uploaded to the HER. [redacted] and [redacted] confirmed that this can be shared for the PEIR version as this in already in the public domain but not for the ES version at the moment. [redacted] queried when comments on the WSI will be required, whether next week is acceptable. [redacted] confirmed this would be much appreciated. No further questions. Meeting ended.	**Boundary so this can be uploaded to the HER.**	
Summary of Actions		**Status**	**Completion Date**
A1.	**[redacted] to work more closely with [redacted] on redrafting of the DBA.**		
A2.	**RPS to provide a map of magnitude survey coverage to highlight where gaps may be present.**		
A3.	**PEIR data to be released so this can be added to the HER. ES data to follow once consultation has commenced.**		
A4.	**[redacted] to be included within the consultation of the outline onshore WSI.**		
A5.	**Client team share .shp of the PEIR RLB with [redacted] to upload onto the HER.**		
A6.			

Summary of Agreements			
ON-HER-01	Specification is no longer required for the DBA.	**The EWG**	
ON-ECO-1.21	The use of the geophysical surveys as a proxy for the site walkover was agreed to as long as this can be evidenced. It was noted that there may still be gaps, but as much of the route should be covered.	**The EWG**	

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H.3.2: Historic Environment Technical Note – Meeting 3

Technical Note

Morgan and Morecambe Offshore Wind Farms: Transmission Assets

Reference: Transmission Assets – proposed trial trenching (initial phase) for consultation

Date: 07/11/2023

Purpose of this note

As part the Transmission Assets, a number of surveys are being undertaken to better understand the existing historic environment baseline and the potential for buried archaeological assets. These include intrusive surveys such as trial trenching.

This technical note is provided alongside the proposed trial trenching plan for a section of the Transmission Assets, also referred to as the initial phase of trial trenching. The aim is to consult on this plan with Historic England and Lancashire County Council, with the intention to agree a final trial trenching plan for this initial phase. The Project would appreciate feedback on the proposed trial trenching plan by the 5 January 2023.

Please do let the Project know if a dedicated call to discuss the proposed trial trenching plan, or the work completed which fed into this, is preferred.

The geophysical (magnetometer) surveys are ongoing and are anticipated to be complete by early 2024, subject to access availability. These surveys are being completed in batches as land of interest is made accessible. Accordingly, the process by which proposed trial trenching plans are consulted on will mirror this staged approach. The intention being to agree the final trial trenching strategy in batches, as discussed in the second Historic Environment Expert Working Group (9 August 2023).

Archaeological survey work to date

A combination of historic desk based assessment and geophysical survey work has been completed to date. The geophysical surveys are ongoing and are anticipated to be complete by early 2024, subject to access availability. As per usual practise, a second phase of archaeological investigation in the form of exploratory trial trenches is proposed to follow these surveys.

Interpretive mapping has been generated for the areas where geophysical surveys have been completed. This mapping has been reviewed to determine if areas of interest, also referred to as ‘anomalies’, are present within the areas surveyed. These ‘anomalies’ have been considered against data collated through the historic desk based assessment, primarily the available historical records, to identify targeted areas where trial trenching is proposed.

It should be noted that work is ongoing to identify the need for core sampling surveys, specifically where there is a need to better understand the historic environment baseline to feed into geoarchaeological deposit modelling. As per usual practice, the Project would aim to couple these surveys with trial trenching where possible to reduce disruption. This work is ongoing, but will feed into this intrusive surveys consultation process as soon as it is available.

Proposed trial trenching layout

As stated, in order to gain greater understanding of the potential impact of construction on any buried archaeological remains that may be present along the cable route or the potential substation sites, a phased and iterative programme of archaeological evaluation in the form of trial trenching will be undertaken.

The proposed trial trenching layout is provided in **Annex A**. This encompasses areas where geophysical surveys have been completed and the initial phase of trial trenching is proposed. The base mapping for the proposed trial trench locations includes the interpretive mapping results from the geophysical surveys.

A total of 136 trial trenches have been proposed within an area of approximately 101.22 hectares. The proposed trial trench locations look to examine all geophysical ‘anomalies’ which could potentially be of archaeological interest along with areas that are geophysically 'blank'. The rationale behind looking at these ‘blank’ areas is that the geophysical survey needs to be ground-truthed so that we (and the consultees) can be sure that the apparent absence of archaeological features indicated by the survey is actually a genuine absence. Some soil and bedrock types respond better to geophysical survey methodologies than others.

As can be seen from the mapping in **Annex A**, the geophysical survey has identified several locations where there are small curvilinear anomalies. It is thought these may represent prehistoric enclosures and are therefore proposed to be subject to trial trenching wherever they have been found. Examples include Trenches 4, 13, 18, 44 and 54. The geophysical survey has also identified linear features (ditches and gullies), some of which are likely to be former field boundaries, and spreads of material with a strong ferrous signal that could represent industrial activity. Other anomaly types include parallel and closely-spaced straight lines which are more likely to represent field drains.

Trial trenching methodology

As will be set out in the Written Scheme of Investigation (WSI) for this evaluation, the trial trenching will be undertaken by an experienced specialist contractor. Trench locations would be surveyed and marked out in advance of excavation and would be scanned for buried services using appropriate equipment. No excavation would take place at locations where buried services are detected. The presence of known buried services has been taken into account when designing the trench locations. The presence of overhead services would also be assessed in advance and appropriate safety procedures would be followed.

If wet weather causes the ground conditions to deteriorate to the point where vehicle rutting or slewing cannot be avoided, works in the field in question will be put on hold and plant relocated. The archaeological team will make an assessment of ground conditions prior to starting work in each location.

Each trench would measure 50 metres (m) by 1.8 m and would be excavated using a toothless ditching bucket, under the supervision of a suitably qualified and experienced archaeologist. Depth would be variable according to the nature of the ground at each location. Where no superficial deposits or subsoils are present, the work would require just the removal of topsoil in order to expose the underlying weathered surface of the basal or superficial geology. If subsoils are present, excavation would proceed with the removal of such material in level spits of around 100 millimetre thickness.

During excavation, spoil would be placed adjacent to the trench, but at a safe distance such that any placed material cannot slide or fall into the trench. Topsoil would be placed on one side, with subsoils placed on the other side. Once the trench has been fully excavated, it will be examined and recorded by the archaeological team. If any archaeological features (definite or potential) are located within the trench, this may be examined further by way of hand-excavation (picks, shovels, trowels etc) in order to gain a better understanding of feature type, date etc.

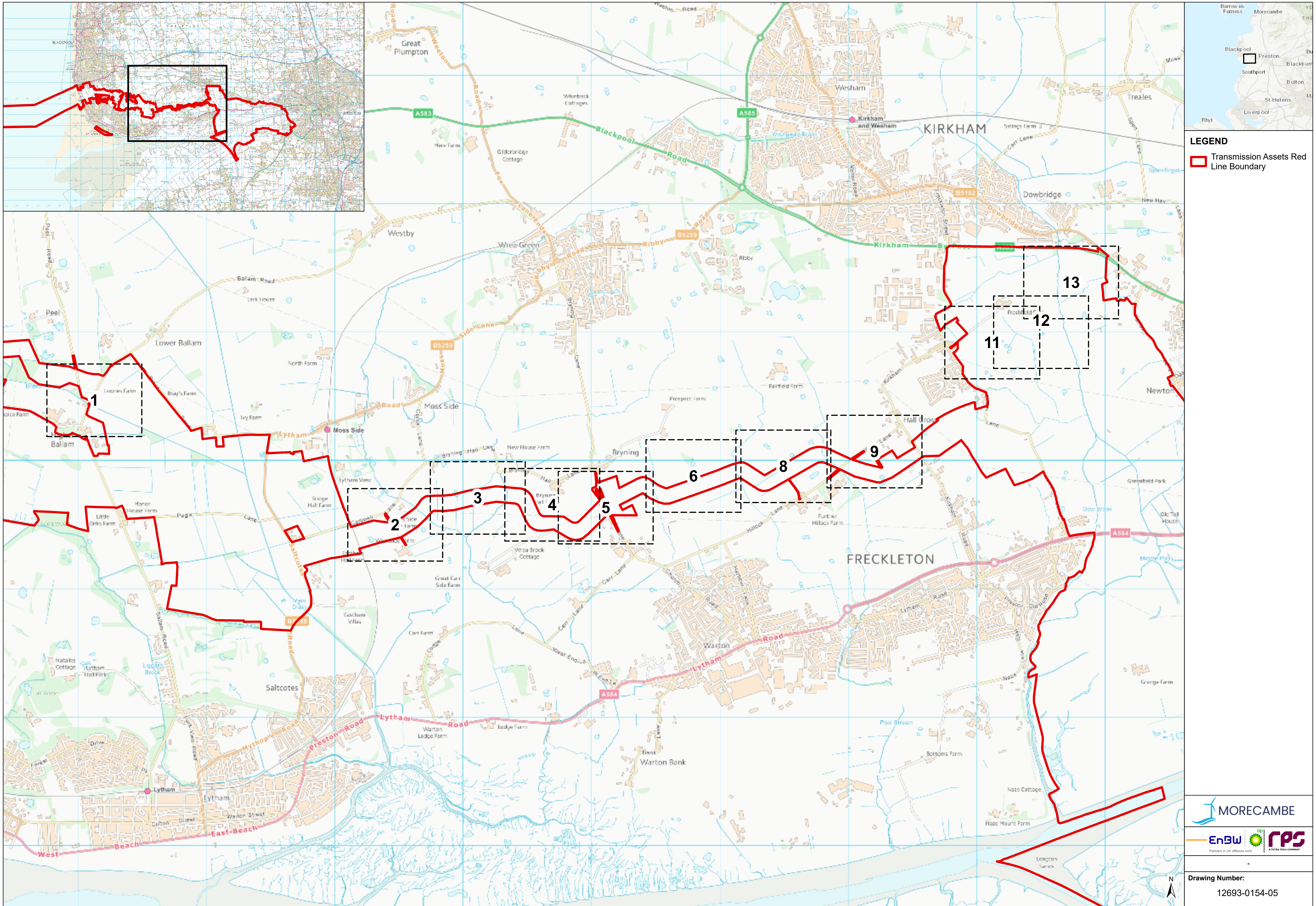
Each trench is unlikely to remain open for a period of more than 2-3 days, subject to sign-off procedures agreed with the consultees. Once all archaeological recording has been completed, the trench would be backfilled using the adjacent placed material. Subsoils (if present) would be placed back in the trench first, with the topsoil going back on top of the subsoils. The materials will be compressed as they are replaced, using just the bucket of the excavator. No further reinstatement of the trench or vehicle ground disturbance would be undertaken. Following completion of fieldwork and backfilling, the archaeological team would demobilise from each location, ensuring the removal of all equipment and materials.

Summary

As stated, this technical note and the accompanying proposed trial trenching plan aims to facilitate consultation and seek feedback from Historic England and Lancashire County Council, with the intention to agree a final trial trenching plan for this initial phase of surveys.

The Project would appreciate feedback on the proposed trial trenching plan by the 5 January 2023. Please do let the Project know if a dedicated call to discuss the proposed trial trenching plan, or the work completed which fed into this, is preferred. If there are any questions or further information required in order to provide feedback, please do not hesitate to ask.

Annex A Proposed trial trenching plan (initial phase)



LEGEND

Transmission Assets Red Line Boundary

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Drawing Number:

12693-0154-05

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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA OVERVIEW

0 250 500 750 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:25,000

Data Sources:

Service Layer Credits: World Topographic Map: Esri, HERE, Garmin, FAO, NOAA, USGS
OS_Open_Raster: Contains OS data © Crown Copyright and database right 2022

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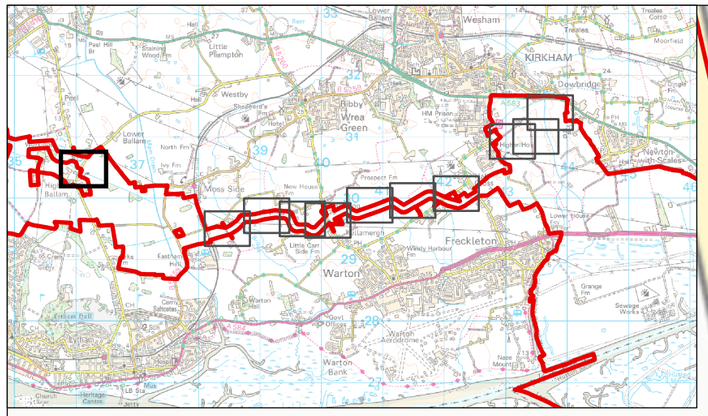

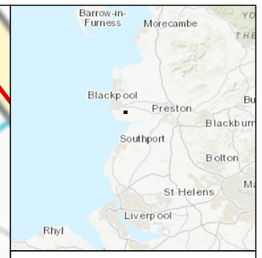

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Higher Ballam

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LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Weak)
- Archaeology Possible (Strong/ Line)
- Archaeology Possible (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Strong/ Line)
- Natural (Weak)
- None
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Ferrous (Strong/ Line)

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Drawing Number:
12693-0154-05

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 1

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

Service Layer Credits: World Topographic Map: Esri, HERE, Garmin, FAO, USGS OS_Open_Raster: Contains OS data © Crown Copyright and database right 2022

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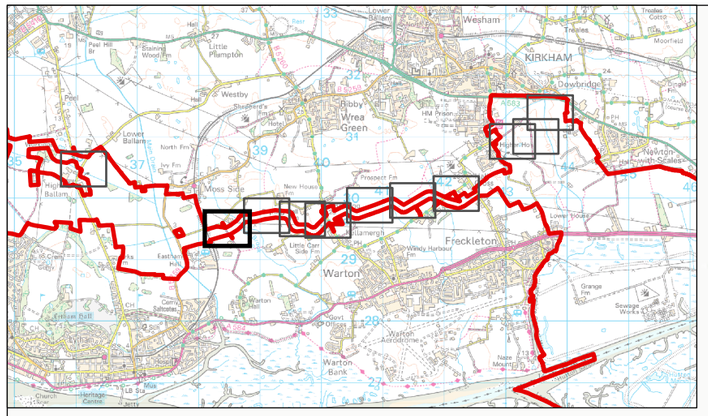

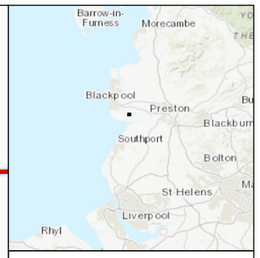

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Villa Farm

Woodside Farm

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LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Strong/Line)
- Agricultural (Weak)
- Archaeology Possible (Strong/ Line)
- Archaeology Possible (Weak)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Natural (Strong/ Line)
- Natural (Weak)
- None
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Ferrous (Strong/ Line)

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Drawing Number:
12693-0154-05

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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 2

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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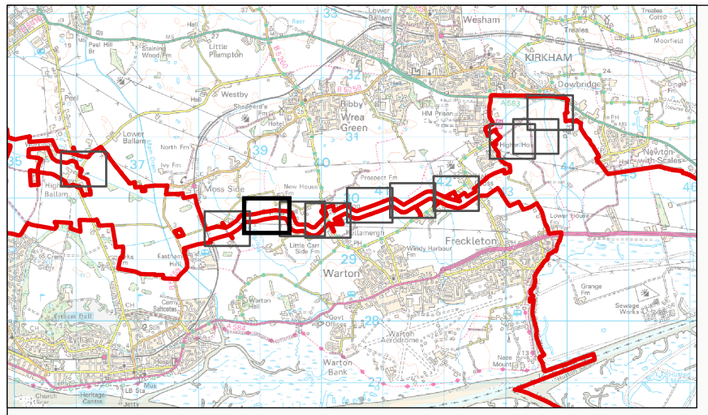

LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Weak)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Natural (Weak)
- Overhead Cables (Spread/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Service (Line)
- Ferrous (Strong/ Line)

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Drawing Number:
12693-0154-05

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Project Name:
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Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 3

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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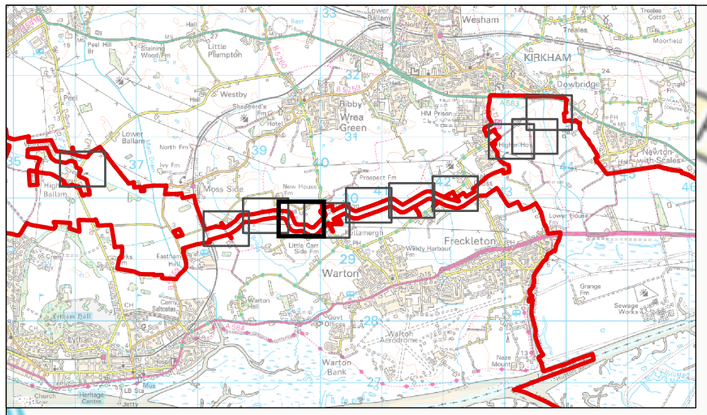

Bryning
Hall Farm

HALL LANE

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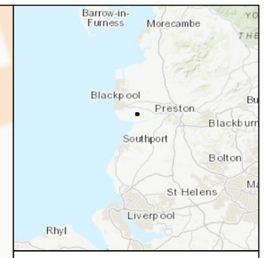
WREA BROOK



LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Weak)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Natural (Weak)
- Overhead Cables (Spread/Line)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Service (Line)
- Ferrous (Strong/ Line)

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Drawing Number:

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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 4

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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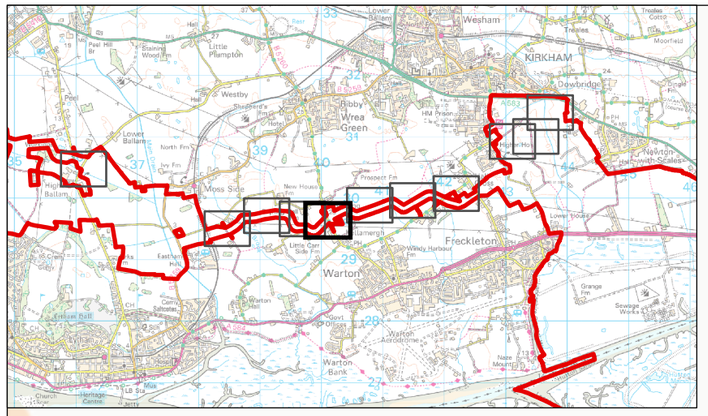

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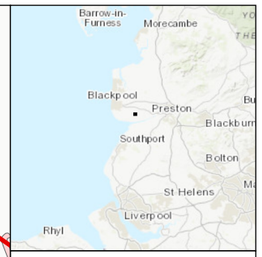

LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Weak)
- Overhead Cables (Spread/Line)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Weak)
- Service (Line)
- Ferrous (Strong/ Line)

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WREA BROOK LANE

BRYNING LANE

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Drawing Number:
12693-0154-05

Project Name:
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Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 5

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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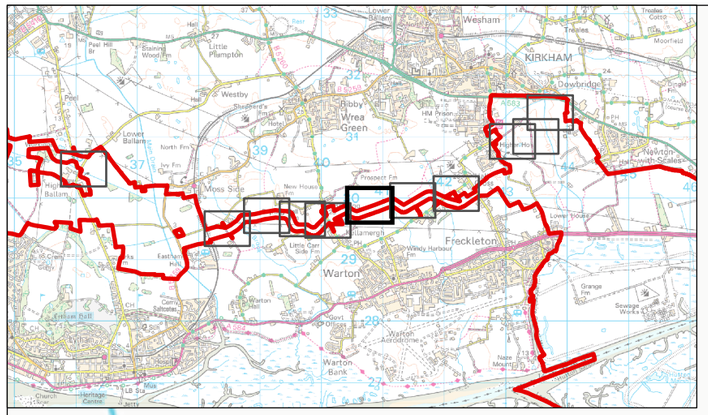

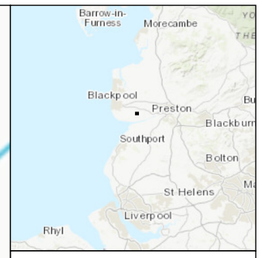

LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Natural (Weak)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Service (Line)
- Ferrous (Strong/ Line)

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Drawing Number:

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VER	DATE	DETAILS	BY	CHECK
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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 6

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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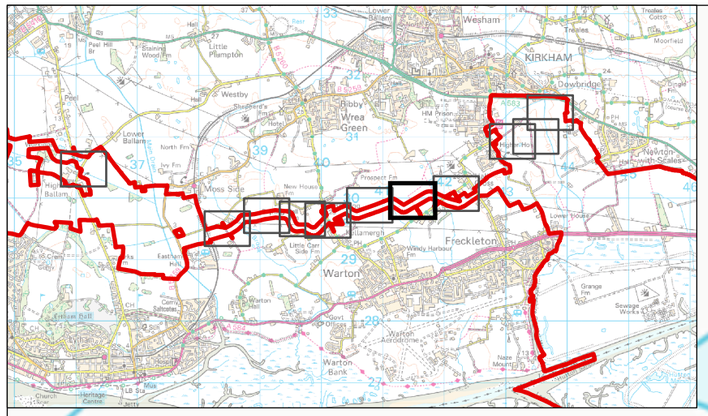

LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Natural (Weak)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Overhead Cables (Spread/Line)
- Service (Line)
- Ferrous (Strong/ Line)

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Drawing Number:
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VER	DATE	DETAILS	BY	CHECK
05	05/12/23	FINAL	SHB	AW

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 7

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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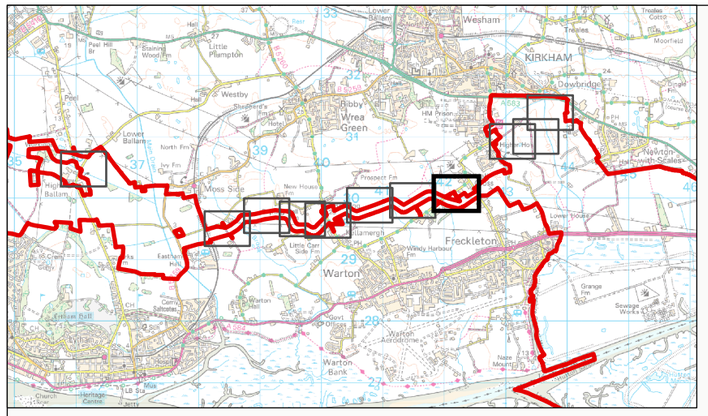

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LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Strong/Line)
- Agricultural (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Natural (Weak)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- None
- Ferrous (Strong/ Line)

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Drawing Number:

12693-0154-05

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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 8

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

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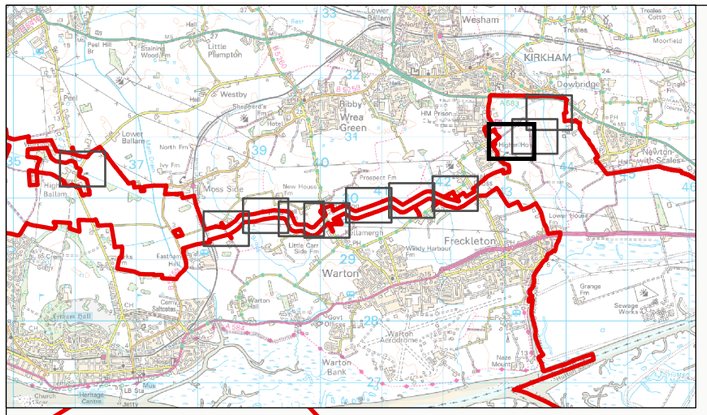

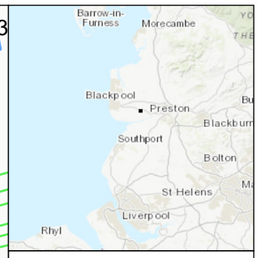

LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Spread/Drain)
- Agricultural (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Agricultural (Weak)
- Ferrous (Strong/ Line)

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Drawing Number:
12693-0154-05

Document Path: O:\12693 Morgan Morecambe Transmission Assets\Tech\Drawings\12693-0154-05.aprx

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 9

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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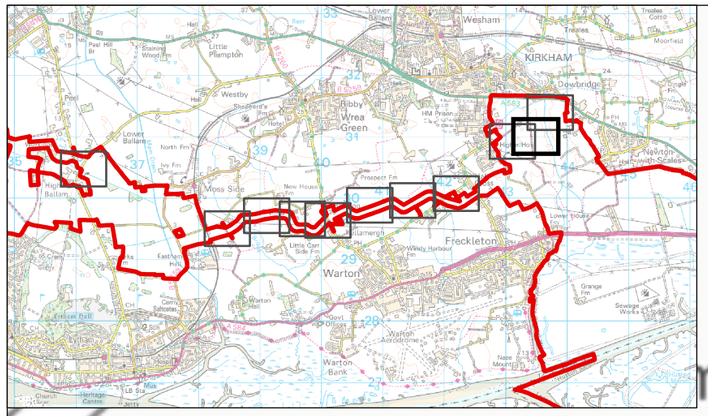
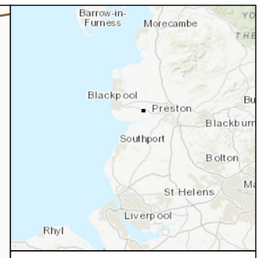
05	05/12/23	FINAL	SHB	AW





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LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Agricultural (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Agricultural (Weak)
- Ferrous (Strong/ Line)

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Drawing Number:
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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 10

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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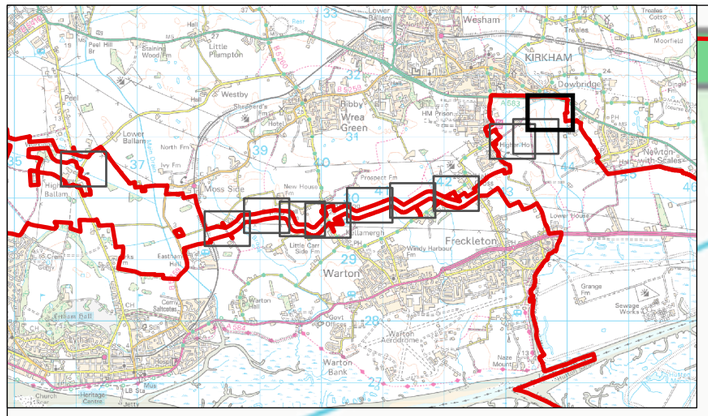

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LEGEND

- Transmission Assets Red Line Boundary
- Trenching Areas

Interpretive Mapping

- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Agricultural (Weak)
- Ferrous (Spread)
- Ferrous (Strong/ Line)
- Natural (Spread)
- Undetermined (Strong/Line)
- Undetermined (Weak)
- Agricultural (Spread/Drain)
- Agricultural (Strong/Line)
- Agricultural (Weak)
- Ferrous (Strong/ Line)

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Drawing Number:
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Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
PROPOSED TRIAL TRENCHING AREA - 11

0 10 20 30 40 50 m

Geodetic Information:
Datum: OSGB 1936
Projection: British National Grid
Scale@379mmx231mm: 1:2,000

Data Sources:

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05	05/12/23	FINAL	SHB	AW

Appendix I: Traffic and Transport

I.1: Traffic and Transport – Meeting 1

I.1.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

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Minutes of Meeting Number	:	Transmission Assets Traffic and Transport EWG Meeting 1	**REV. No.** :	Rev03
Minutes of Meeting Subject	:	Transmission Assets Traffic and Transport EWG Meeting 1		

MINUTES OF MEETING

MEETING DATE	:	16/03/2023
Az-MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted]
ISSUED BY	:	[redacted]

Attendees:

- [redacted]

Apologies:

- [redacted]

Agenda

1. Introductions
2. Overview of the Transmission Assets project
3. Programme
4. Overview of Evidence Plan Process
5. Expert Working Groups
6. Onshore Route Planning and Site Selection
7. Transport Assessment
8. Initial Traffic and Transport Study Area
9. Forecast baseline traffic flows and other new road schemes
10. Environmental Impact Assessment and Transport Assessment
11. Offshore Impacts (Generation Assets)
12. Onshore Access Strategy
13. LCC Highways Projects
14. Next Steps and AOB

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		

DRAFT

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
1.	**Introductions** (presented by AS) Welcome and introductions by all.		
2.	**Overview of the Transmission Assets project** (presented by AS) **About the wind farms** (presented by AS) Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project, located in the east Irish sea. The Morgan Offshore Wind Project is located approximately 22 km (12 nautical miles (nm)) from the Isle of Man and approximately 36 km (20 nm) from the northwest coast of England (when measured from Mean High Water Springs (MHWS)). The anticipated nominal capacity of the Morgan Offshore Wind Project is 1,500 Megawatts (MW). Morecambe Offshore Windfarm Limited (Morecambe OWL), a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd. (Flotation), is developing the Morecambe Offshore Windfarm. The Morecambe Offshore Windfarm is also located in the east Irish Sea approximately 30 km (16 nm) from the northwest coast of England (when measured from MHWS). The anticipated nominal capacity of the Morecambe Offshore Windfarm is 480 MW. **About the Transmission Assets** (presented by AS) In July 2022, the UK Government published the Pathway to 2030 Holistic Network Design documents, which set out the approach to connecting 50 GW of offshore wind to the UK electricity network (National Grid ESO, 2022). The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm would work collaboratively to develop their transmission assets for connecting the wind farms to the National Grid at Penwortham in Lancashire. Morgan OWL and Morecambe OWL (the Applicants) are therefore seeking development consent for transmission assets comprising shared offshore export cable corridors to landfall and shared onshore export cable corridors to onshore substation(s), and onward connection to the National Grid electricity transmission network at Penwortham, Lancashire. These are known as the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to as the Transmission Assets). Both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm fall within the definition of a Nationally Significant Infrastructure Project (NSIP), as they exceed the threshold for an offshore generating station of 100 MW, set under the Planning Act 2008, as amended. They therefore require an application for development consent to be made to the Planning Inspectorate.		

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	In relation to the Transmission Assets, the Applicants sought a direction from the Secretary of State under section 35 of the Planning Act to confirm that they should be treated as development for which development consent is required under the Planning Act 2008, as amended. A direction was given on 4 October 2022 and the Applicants are now pursuing a single Development Consent Order (DCO) for the transmission assets for both wind farms. It is anticipated that the Applicants will apply for a DCO which authorises two coordinated but electrically separate sets of transmission works (for example, where each offshore wind farm would have its own transmission cables and substation infrastructure).		
3.	**Programme and key milestones (presented by AS)** **Key Dates (presented by AS)** The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants will progress with consenting and both offshore and onshore surveys, noting that the Applicants have already commenced a number of terrestrial ecology surveys and offshore surveys which have fed into the ongoing site selection work. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. As a result the EWG process has commenced whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in Autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will request feedback on the PEIR and project as a whole. We will use this feedback to develop and refine our assessments and refine the project further. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest we are anticipating earliest construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
4.	**Overview of the Evidence Plan Process** (presented by AW) **EPP** An overview of the evidence plan process was presented. The presentation slides accompany these meetings minutes. Highlights are below: The proposed approach has been developed following the Planning Inspectorate and Defra guidance and recent guidelines produced by Natural England. The EP is a mechanism to agree upfront what information the Applicants	**Action for all: Please request sight of the Terms of Reference documents if you do not already have this.**	

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	need to supply to the Planning inspectorate Examining Authority as part of a DCO application. It allows the Applicant to demonstrate that information provided in the application is appropriate and that the Applicants have endeavoured to agree this with the key parties. The EP process has historically been focused on the Habitats Regulations Assessment (HRA) process. However, in line with recent best practice, the Applicants propose to extend this to include the EIA process, as set out in the EWG slides later in the presentation. There is a separate EP process for the Transmission Assets to those of the Morgan Generation and Morecambe Generation assets applications. **Roles and responsibilities** The key roles and responsibilities of applicants and stakeholders throughout the EP process are set out in the EPP Terms of Reference (ToR). The EP process is led by the Applicants. The responsibility for updating the EP is with the Applicants, with feedback from the relevant consultees. **Overview of Evidence Plan Steering Group** The EP Steering group oversees the development and monitoring of the Evidence Plan and its progress and meet at key milestones throughout the programme. The first EPP steering group meeting was help in January 2023, and a second meeting is being agreed.		
5.	**Overview of identified Expert Working Groups** (presented by AW) An overview of the identified Expert Working Groups was presented. The presentation slides are attached. Highlights are below: The aim of the EWGs is to discuss and agree (where possible) key elements of the EIA and HRA during the pre-application period. The overarching approach to the EWG meetings can be found in the ToR. The overall programme will depend on topic-specific discussions and needs and can be flexible. An indicative programme for the Traffic and Transport EWG is set out in the presentation slides, but these dates are flexible. Meetings will include discussion of baseline characterisation, potential impacts on receptors, methodologies and approaches to surveys, preliminary findings and appropriate mitigation measures.		

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	The overall aim is to record agreements resulting from these discussions into Statements of Common Ground (SoCG), so that the Examination period only focusses on key issues. Material to be discussed will be provided prior to the meeting, with minutes and agreements circulated after the meeting. All procedures are included in the ToR. A broad approach is as follows. • Information circulated to EWG minimum two weeks ahead of meeting. • Meeting is held with attendees prepared to comment on materials provided. • Full meeting minutes will be taken and agreement logs will be compiled where matters are agreed, and after each meeting the minutes and agreement log will be circulated two weeks after the meeting. • Then minutes will be agreed, with comments from stakeholders two weeks after issue of minutes. The agreement log will be updated and ultimately appended to the DCO application.		
6.	**Onshore Route Planning and Site Selection** (presented by AS) An overview of the Onshore Route Planning and Site Selection process was presented. The presentation slides are attached. Highlights are below: The ongoing route planning and site selection process is based on landowner, commercial, environmental and engineering constraints in combination with the overarching principles for the route such as the most direct route, avoiding small land holdings and crossing utilities, roads and watercourses at as close to 90 degrees as possible. Remaining constraints are mapped according to how significant they are in terms of constraining development. Constraints and examples will be discussed at the next EWG. The boundary will be further refined following this process, but this will occur following PEIR publication. The anticipated final site selection for PEIR submission will include the proposed onshore export cable corridor of circa 120m, temporary compound areas, temporary access tracks, and substation zones (potentially with preferred substation site within) and operational access across the length of the onshore part of the project. As new information is received and obtained by the project, the proposed route will continue to be refined. New information includes environmental information as discussed during EWG meetings, alongside landowner engagement, feedback from EWGs and preliminary impact assessment findings.		

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	Operational access points/ areas will also be identified for the substation and along the onshore export cable corridor. Community non-statutory consultation to be held in April and May 2023 will seek feedback on current indicative refined route and proposed substation zone. Specific mitigation that has been discussed and agreed through the EP process will be logged in the commitments register, with mitigation contained within this secured via the dDCO (draft DCO).		
7.	**Transport Assessment** (presented by DA) The comments received on the scoping opinion relevant to Traffic and Transport were presented. The presentation slides are attached. Three comments received from PINS agreed with the following elements of the proposed approach: • land based traffic and transport movements generated by the offshore generation assets via port to be scoped out; • vehicle movements generated by operation and maintenance and decommissioning to be scoped out; and • mitigation measures to be explained in the ES along with the mechanism for securing measures as part of the dDCO. Scoping comments received from Fylde Council highlighted that the scope of the ES must be sufficient to ensure all existing infrastructure is appropriately considered. DA confirmed this would be the case and the EWG will discuss and agree the scope of the methodology. Scoping comments received from Blackpool Council highlighted delays on one of two roads – Clifton Drive A584 and Queensway B5261 - could cause subsequent delays on the other. The M55 to Heyhouses link, currently under construction, could have similar effects. DA stated that increasing the study area to include these roads is possible and will be discussed with a representative of Blackpool council when possible. DA agreed with scoping comments from National Highways and confirmed that National Highways will be consulted throughout the EP process.	**Action: GR to provide any further comments from LCC on the scoping report** **Action:** Project to discuss study area re: Clifton Drive A584 and Queensway B5261 with Blackpool Council.	18/04/2023 Awaiting confirmed point of contact at Blackpool Council.
8.	**Initial traffic and transport study area** (presented by DA) An overview of the proposed scope of the Traffic and Transport EIA process and Transport Assessment was	**Action: DA to discuss study area regarding A584, B5261 and M55 to**	Awaiting confirmed point of contact at

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	presented. Presentation slides will be provided to accompany the meetings minutes. The study area includes all key roads to the north, south and east of the proposed onshore corridor. These include the M55 to the north, M6 to the east, A584 to the south, A582 and A59 to the southeast and the A61 to the east. Blackpool council as mentioned in their scoping response would like the study area extended to include the A584, B5261 and M55 to Heyhouses Link (under construction). This will be discussed at a later date. GR confirmed that all key roads within the local road network have been identified and included within the study area, including those currently under construction. WH highlighted that the information on potential traffic impacts has been light to date, and as such particular areas of concern on the SRN included in the study area cannot be identified at this time. It will depend on where particular access points from the SRN for the project will be. The triangle of the M6, M61 and M65 to the southeast is likely to require consideration, with extensive roadworks on the M65 anticipated in the coming years. The M6-M55 link at junction 32 will experience congestion in the coming years. Aside from these, it will depend on particular junctions and frequency of movements as to where the greatest impacts are likely to be. GR stated that there are no particular areas of concern regarding the local road network that need to be highlighted at this stage. Particular concerns will be raised throughout the EP process.	**Heyhouses link with Blackpool council representative.**	Blackpool Council.
9.	**Forecast baseline traffic flows and other new road schemes** (presented by DA) The proposed methodology to calculate the forecast future baseline traffic flows was presented. Anticipated construction start date is 2025/26 at the earliest, so the future baseline will take into account roads that are currently under construction. The major roads currently under construction include the M55 to Heyhouses link, A582 South Ribble Western Distributor Dualling, Preston Western Distributor and East-West Link road. There is potential for reassignment of traffic from current roads as a result of these schemes. As such, existing traffic modelling for schemes currently under construction will be incorporated with current traffic flows to inform the future baseline year traffic flows. A review of the existing traffic modelling for the schemes currently under construction is suggested to be undertaken so		

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	that a methodology for the calculation of the future year baseline can be presented to the EWG participants for agreement. GR and JH agreed that this approach was reasonable. WH highlighted that the traffic models used should be the most up-to-date available, particularly the Saturn traffic model around Preston. The Preston West Distributor modelling is now out of date, with modelling undertaken approximately 8-10 years ago. GR agreed and stated that the Central Lancashire Local plan is under review, so modelling for roads under construction will be picked up in due course. DA confirmed that models will be reviewed taking into account these concerns and a methodology will be presented to the EWG in due course for agreement.	**Action:** AS to request up-to-date modelling available for the schemes currently under construction from LCC (COMPLETED)). **Action**: DA to provide methodology for approach to modelling.	30/03/2023. Awaiting modelling reports from LCC.
10.	**EIA and Transport assessment** (presented by DA) The impacts from the construction generated traffic from the onshore elements of the Transmission Assets are proposed to be scoped into the EIA process, based on a maximum design scenario. The operation and maintenance and decommissioning impacts will be scoped out given that the impacts from operational traffic are likely to be minimal and decommissioning traffic is typically lower than construction – thus, construction traffic will cover the likely effects of decommissioning traffic flows. It is proposed that the Transport Assessment will have a separate scoping report for the scope and methodology. This will be subject to a separate meeting and will be discussed in due course. A Transport Assessment Scoping Report will be prepared for agreement.		
11.	**Offshore impacts** (presented by ST) It is proposed that the onshore traffic and transport impact of the offshore construction, operation and maintenance and decommissioning activities are scoped out of the EIA process. As no decision has been made on a preferred base port for the offshore construction and operation and maintenance of the generation and transmission assets, the approval of a base port will be provided by means of one or more planning applications or as port operations with permitted development rights, separate to the DCO.		

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	The Applicants have committed to undertaking a Port Access and Transport Plan (PATP) for Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm Project Generation Assets. An outline PATP will be submitted in support of the DCO applications and secured by DCO requirement. A detailed assessment will be undertaken separately once the preferred port location is known. The need for a PATP has been scoped out for the Transmission Assets. WH raised whether there is any potential for a port in the region to be used, and whether this will have an associated onshore traffic impact, particularly with regard to abnormal loads. ST stated that at this stage the base port(s) for the generation assets are unknown. This is not uncommon for these types of projects, with a decision on the preferred port made post-consent. As a result, the port could be local, elsewhere in the UK or continental Europe. With regard to abnormal loads, turbines for projects of this scale are generally constructed at a factory close to the sea and are taken immediately offshore. As a result, there is unlikely to be any impact on onshore traffic from the transport of turbines. WH highlighted that National Highways can provide information on particular schemes or network constraints if any particular ports are favoured later in the application process. GR highlighted that Heysham port is the only port under LCC's jurisdiction and is content that this can be assessed at a later date if relevant.		
12.	**Onshore temporary access strategy** (presented by ST) An introduction to the access strategy for the construction of the Transmission Assets was presented. Presentation slides and accompanying proposed access locations are attached. A summary is detailed below. Access points have been identified based upon professional judgement and informed by a review of desk-based mapping sources. The review of access points included assessments of route geometry, access constraints and sensitive receptors. Two types of access points have been identified in the review: • Indicative construction access points, where locations are considered suitable for supporting HGV and LGV access; and • Highway crossing points, preliminary indicative locations where construction traffic would cross the	**Action:** ST to provide google earth mapping with access points if requested. **Action:** ST to contact [redacted] regarding access at the M55 Heyhouses Link Road for any initial comments.	If required. To be confirmed once construction traffic flows shared with stakeholders

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	public highway only and move along a temporary haul road along the length of the route. Indicative access points will predominantly be from within LCC's highways boundaries rather than the SRN. Initial comments are sought on the indicative temporary access points presented. Plans will be shared following the meeting. GR highlighted some current constrains on the local road network. These include the M55 to Heyhouses link road. There has had to be pre-loading before construction due to engineering constraints such as the presence of peat. Each point on the accompanying slides corresponds to a indicated temporary access point. The maps display all indicative access points that area currently being . In line with the design philosophy of the Transmission Assets for two sets of coordinated but separate works, separate access points will be identified where possible to allow for maximum flexibility within the construction programme (i.e. for both projects to be able to construct independently). Final locations will be dependent on anticipated traffic demands. It is highlighted that these access points are indicative. In addition, the number may change or be refined as the project develops. The first section displays potential access points around Blackpool Airport. Points 2 and 3 are for access to the shore to install cables in the beach area. These are existing access routes to the sand winning area. Alternative indicative access routes to the beach are points 1, 7 and 8 (also via existing accesses). It is anticipated that these points would not have substantial traffic movements as this access is solely for cable pulling – drilling would occur from the land side. Points 4-6 and 10-14 are initial indicative access points via existing accesses to Blackpool Airport. These may be refined as the site selection process progresses. Access 9 is via the golf course. Points 18 and 19 are proposed from the B5261 Queensway to access both east and west. GR outlined the proposals for the Blackpool Enterprise Zone. Some road improvements are proposed to the local highway networks, which can be accommodated. Major housing – Queensway Development – is south of points 18 and 19 and will be under construction for many years. The M55 to Heyhouses link is also in the vicinity. Access points 20-24 are from the under construction M55 to Heyhouses link road. To ensure compatibility between the proposed access points and the link road, ST asked if there is a team at LCC that would be best to engage with.	**Action:** ST to liaise with [redacted] regarding temporary access track (point 69). **Action:** ST to provide figures detailing potential access points alongside meeting minutes.	To be confirmed once construction traffic flows shared with stakeholders 05/04/2023

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	GR replied that [redacted] is project manager for the M55 Heyhouses Link Road, and the best point of contact for any queries regarding this road. The next section displayed indicative temporary access and crossing points between Higher Ballam and Warton. Points 25-28 are proposed as access points from Ballam Road, with traffic travelling to/from the M55 to the north. Points 30-33 are proposed as crossing points at Peg's Lane, to avoid traffic on Peg's Lane. Point 29 is proposed as access to the small land parcel to the south of the drain. Points 34-37 are proposed as access points from Saltcotes road, with traffic travelling to/from the A582 to the south. Points 38-40 are proposed as crossing points only, with no construction traffic entering at these locations. Points 42-45 are proposed as access points from Bryning Lane, with traffic travelling to/from the A584 to the south. GR highlighted that the roads mentioned are not heavily trafficked but are poor roads in terms of network and access. However, it is unlikely for there to be unacceptable traffic levels during construction (dependent on final predicted flows). More detailed comments can be made when more detailed traffic demand models are presented, but no concerns are raised at this stage. The next section displays indicative temporary access and crossing points to the section of the route north of Warton and Freckleton. Points 52-53 are proposed as access points from Kirkham Road with traffic travelling to/from the A584 to the south or the A583 (and then M55) to the north. Points 46-51 are proposed as crossing points at Hillock Lane. 54-57 are proposed as crossing points at Lower Lane. GR highlighted that Kirkham Road has signalised junctions onto principal roads going either north or south, so access could be from either direction. The final section displays indicative access and crossing points between Clifton and Lea. Point 58 is proposed as an indicative access point from the A584 and is an existing access road to the River Ribble and a sewage treatment works. Points 61-62 are proposed as access points from the A584. Points 59-60 and 63-64 are proposed as access points from the A583. Points 65-66 are proposed as access points from Lodge Lane. GR did not raise any concerns with these access points and will review details when figures have been received. Long term traffic levels on the A583 are predicted to reduce when the Preston Western Distributor becomes operational.	**Action: The project to reach out to [redacted] on the LCC highways projects currently in development/ construction.**	To be confirmed once construction traffic flows shared with stakeholders

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	Points 67 and 69 are proposed as indicative access points from the A583. Point 67 is an existing access to wastewater treatment, with an existing bus stop. Point 69 is temporary access for construction of Preston Western Distributor, with a potential overbridge to access both north and south of the A583. ST asked if there are any indications of whether this access will be removed following completion of the Preston Western Distributor. GR highlighted that this should be discussed with [redacted]. Point 70 from the A583 is an existing farm access and is proposed as an access point to the River Ribble. Access point 71 from Wallend Road is an alternative access point to the river Ribble. GR highlighted that access point 71 is likely to be better than 70, though will depend on the position of the river crossing. There are no other concerns at this stage. The meeting slides and further figures will be issued alongside these minutes.		
13.	**LCC highways projects** (presented by AS) Further information regarding current LCC highways projects, including detailed design plans, in order to mitigate any potential effects such as locations and depth of HDDs and the width of cable corridors, was requested. AS asked whether it would be beneficial to set up a separate meeting or to directly request these plans, and secondly whether there are any upcoming projects in the area that the Applicants should be aware of. GR suggested that LCC could provide any requested information initially, with a meeting set up if required following a review of this information. GR confirmed that [redacted] should be contacted regarding both the Preston Western Distributor and M55 to Heyhouses Link, and that there are no upcoming LCC projects to be aware of. WH highlighted that there are no National Highways projects in the region currently in the programme. The terminus of the M65 near Cuerden, where works including roundabout alterations and mitigation areas are anticipated to begin construction in 2025-2026, thought these have not been confirmed. These would be developer funded rather than National Highways schemes.	**Action: AS to contact [redacted] to request detailed plans of relevant LCC highways projects. (COMPLETED)**	03/04/2023
14.	**Next steps and AOB** (presented by AS) Meeting minutes and slide deck to be shared, could these be commented on and responses returned in the following two weeks.		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Summary of Actions		**Status**	**Completion Date**
A1.	**Please request sight of the Terms of Reference documents if you do not already have this.**	**To be provided only if requested.**	**n/a**
A2.	**GR to provide any further comments from LCC on the scoping report.**	**OPEN**	
A3.	**DA to discuss study area regarding A584, B5261 and M55 to Heyhouses link with Blackpool Council representative and identify proposed methodology for establishing baseline flows. This will be completed once a contact at Blackpool Council has been provided.**	**OPEN**	
A4.	**ST to provide google earth mapping with access points if requested.**	**To be provided only if requested.**	**n/a**
A5.	**ST to contact [redacted] regarding access at the M55 Heyhouses Link Road for any initial comments. This will be completed once the construction traffic flows have been shared with LCC.**	**OPEN**	
A6.	**ST to liaise with [redacted] regarding temporary access track (point 69). This will be completed once the construction traffic flows have been shared with LCC.**	**OPEN**	
A7.	**ST to provide figures detailing potential access points alongside meeting minutes.**	**COMPLETED (accompanying these meeting minutes)**	**04/04/2023**
A8.	**AS to contact [redacted] to request detailed plans of relevant LCC highways projects**	**COMPLETED**	**03/04/2023**
A9.	**AS to request modelling reports from LCC in order to provide methodology for approach to modelling.**	**COMPLETED**	**30/03/2023**
A10.	**Post-meeting note: AS requested appropriate contact at Blackpool Council.**	**OPEN**	
Summary of Agreements			
Ag1.	Review of the existing traffic modelling for the schemes currently under construction to be undertaken, once this is provided by LCC, so that a methodology for the calculation of the future year baseline can be provided and agreed.	**OPEN**	
Ag2.	A Transport Assessment Scoping Report will be prepared for agreement.	**OPEN**	
Ag3.	Initial traffic and transport study area to be further discussed once liaison with representative from Blackpool City Council has been completed.	**OPEN**	

I.2: Traffic and Transport – Meeting 2

I.2.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Partners in UK offshore wind

Minutes of Meeting Number	:	Transmission Assets Traffic and Transport EWG Meeting 2	**REV. No.** :	Rev02
Minutes of Meeting Subject	:	Transmission Assets Traffic and Transport EWG Meeting 2		

MINUTES OF MEETING

MEETING DATE	:	12/09/2023
Az-MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted]
ISSUED BY	:	[redacted]

Attendees:

- [redacted]

Apologies:

- [redacted]

Agenda

1. Introductions.
2. Programme update.
3. Non-statutory consultation.
4. Site selection update.
5. EWG 1 recap.
6. Assessment update:
   - Baseline and preliminary findings;
   - Methodology for construction scenarios;
   - Assessment update;
   - Approach to cumulative assessment
   - Initial identification of mitigation; and
7. Next steps.

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	Meeting recorded		
1.	**Introductions** (presented by LM) Welcome and introductions by all.		

RESTRICTED

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
2.	**Programme update** (presented by LM) The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants have and will continue to progress with consenting activities including both offshore and onshore surveys. The Scoping Report was submitted to the Planning Inspectorate in October 2022. A Scoping Opinion was received in December 2022. As a result we are starting to set up the EWGs whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will afford feedback on the PEIR and project as a whole. The Project will use this feedback to develop and refine assessments and refine the project further. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
3.	**Non-statutory consultation 2 (presented by LA)** LA provided details of the non-statutory consultation that has taken place to date. This consultation was undertaken during the same period as both generation assets projects (Morgan Offshore Wind Project Generation Assets and Morecambe Offshore Windfarm Generation Assets), between April and June 2023. The link to the consultation website was highlighted, to see further details. This link will be accessible within the slides to be shared alongside the meeting minutes. The second round of non-statutory consultation focussed on the indicative: • landfall and onshore export cable corridor (and associated temporary working areas); • onshore substation search areas; and • 400 kV grid connection search area. LA summarised the feedback received from the 2023 non-statutory consultation. This included the key emerging themes from the feedback.		
4.	**Site selection update** (presented by LM)		

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	Focussed on onshore substation consultation areas, onshore export cable route options and the new road option. Cable routes and a road option. The refinement has been done by taking into account the ongoing consultation work as well as using the BRAG criteria. As more information is received, the site selection will continue to be developed. LM discussed the point at which the project is within the site selection process. The previous red line boundary, presented during the previous EWG for traffic and transport, was compared with the refined boundary to demonstrate the changes that have been made, resulting from the feedback from consultation and assessments. At the previous EWG it was noted that there were four zones under consideration for the substation sites. LM noted that whilst the refinement process is still ongoing, the preference for siting is around zone 1, as presented within the slides. LM also noted that while there is one preferred substation site for Morgan and two for Morecambe, the upcoming statutory consultation will be undertaken for the whole of zone 1. No access tracks have been identified for the substation area yet. LM noted that there are two cable options currently under consideration and indicative access locations for these have been identified for PEIR. Beyond Blackpool Airport and Queensway (B5261), the route corridor narrows and routes south east towards North Houses Lane. In the Lytham Moss and Higher Ballam area, two route options are present which are: option 1 (north), which passes to the north of Higher Ballam and avoids a farm conservation area, or option 2 (south), which passes to the south of Higher Ballam. The two options come together east of Ballam Road and the onshore export cable corridor then turns south to cross Pegs Lane and pass to the north of Lytham Green Drive Golf Club In addition, the alternate cable option surrounding Blackpool Airport was presented and is to be considered in the PEIR. In the vicinity of Blackpool Airport, the site selection process is considering either cable installation in land operated by the airport or cable installation within public highways. The PEIR assessment will include details on the proposed installation of cables within the highways, setting out the proposals and undertake a qualitative assessment of the potential effects. No questions were raised.		
5.	**EWG 1 recap** (presented by DA) High-level discussion of EWG 1 was presented.	**Action 1: LCC to provide**	Outstanding.

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	DA discussed that the impact of construction generated traffic of onshore infrastructure (Transmission Assets) was scoped in following the EWG. DA outlined that attendees of the EWG agreed to scope out the following. • Impact of operation and maintenance generated traffic of onshore infrastructure. • Impact of decommissioning generated traffic of onshore infrastructure. • Onshore traffic and transport impacts of the offshore construction, operation and maintenance activities of the generation assets. DA also noted that offshore work that generates traffic heading to a particular ports (location not yet known), the assessment of traffic would come under ports traffic consent so has therefore been scoped out of the assessment. DA raised several other key points that came out of the EWG 1 including the following: 1. Initial Traffic and transport study area expanded into Blackpool and Lytham St Annes (see next slide). 2. Construction vehicle movements were not known at the time of writing the EIA Scoping Report and EWG1, due to: a. Ongoing development of the construction vehicle movements and routes; b. the triangle of the M6, M61 and M65 to the southeast requiring consideration; and c. M6-M55 link at junction 32 will experience congestion in the coming years and requiring further consideration. 3. Baseline traffic flows – three new road schemes will change future year traffic flows. Traffic numbers, routes or access points were not known at the previous EWG. RPS received feedback from WH who provided information on the strategic road network and suggesting routing up the M6, M61 and M65. No questions raised.	**modelling reports as agreed during EWG1 and discussed again during EWG2.**	
6.	**Assessment update** (presented by DA) <u>Study Area</u> DA outlined that the study area relating to traffic and transport was largely the same as before, except extended into Blackpool and Lytham St Annes in the west upon request from Blackpool Council. As before, the study area excludes Preston as no traffic will be routed through there. Feedback on this new study area has been requested from Blackpool Council and liaison will continue to agree the study area. Consensus that the extension in the study area	**Action 2: DA to continue liaison with Blackpool Council regarding the extension to the study are and the**	**15/11/2023.**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	was suitable, subject to confirmation from Blackpool Council. DA noted that the access points identified and presented on the slides are based on construction and engineering requirements. Some will be crossings (under traffic control measures) rather than accesses while some will be formal access points to the highway. The design of these will be shared in the PEIR chapter. Generally the access are between the A583 to the north and A584 to the south. DA requested feedback from GR. GR notes that he has no initial concern and that the general principal is fine. <u>Baseline</u> The baseline scenario has been built up for the PEIR and integrated Transport Assessment. DA outlined that it needs to be noted that the three new roads within Western Distributor are now open. A lot of modelling has been undertaken for these schemes and DA and the transport team have identified three reports (one for each scheme) that have been used for the modelling. However, DA noted that it would be very beneficial to see detailed modelling from LCC. DA asked for feedback on what would be available with regard to those models to ensure that the transport team have the most up to date data. GR noted that one of his colleagues would be able to assist and he will send over their details. For the full application DA notes that the data will be needed to formulate an agreed approach to the assessment (it initially looks like individual assessments have been undertaken for each scheme). The future baseline scenario has utilised the three reports alongside commissioned traffic surveys that have been undertaken across survey area and applied traffic growth rates for 2026 future flows. This will need revisiting for the ES. **Construction scenarios** DA outlined that the maximum construction parameters and requirements which would lead to the most construction traffic movements (shortest duration of construction would lead to high number of movements). An abnormal indivisible load (AIL) assessment is currently underway. The AIL assessment is looking at the access routes in terms of maximum weights and dimensions of materials such as the transformers and cable drums. **Construction flows** DA noted that we currently don't know where the HGV flows will be, however, it is that assumed as a worst-case scenario all construction HGV movements arrive and leave from outside the study area. All travel on all sections of highway in the study area (worst case) have not assumed 25% increase on each, instead the assessment has looked at	**updated redline boundary.** **Action 3: GR to provide details of a colleague who will be able to provide data for modelling input.** **Action 4: LM to distribute the slides and associated figures for comment.**	**2-3 weeks following receipt of minutes.** **15/11/2023.**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	67% increase on each entry point for all HGV movements (226%) but capped the number on each highway at 100% . Once construction vehicle movements were calculated, peaks were identified going to and from each section. DA identified that we currently have peaks on peaks which is not common, this has led to an overestimation of movements and the transport team are currently refining this with engineers. On the figure presented on the slides, the strategic road network is denoted with black dashes with other routes going to various sections of the cable corridor shown in alternative colours. DA notes that we are not planning to use A584 and go north of the study area. DA welcomed any comments on the presented figure. LAI noted that it is hard to see so can't fully comment from just the slides and requested a better format in order to comment. LAI also noted that they will need to consider further details. LM stated that they will issue a PDF version of map. DA requested comments once the presented information is issued and any comments on routes or alternative routes, as well as any priority junctions to consider in the Transport Assessment. DA is happy to discuss any of these once the EWG has considered the information issued. **Assessment update** DA highlighted that they have looked at various Transport Assessment and EIA requirements. The summary table is presented within the slides. DA notes that significant effects in terms of pedestrian and amenity due to high number of HGV from initial estimation, however, these numbers will reduce through the aforementioned refinement process and the effects should be minimised through further mitigation where required if the refinement still results to significant effects. **CEA** DA noted that no cumulative effects assessment has been undertaken to date as there is some uncertainty with the baseline traffic flows as a result of the three new road schemes in the study area. In particular with regards to the inclusion, or not, of other committed developments and cumulative developments within them. A CEA cannot therefore be undertaken as part of the PEIR. This is because some cumulative sites appear to have been accounted for in some of the baseline traffic flows for some of the road schemes, but others have not and there is no means to differentiate between them or accurately remove or add those as required. There will be a CEA for final ES/DCO submission. **Mitigation**	**Action 5: EWG to provide comments on the information pack sent out following the EWG, specifically regarding the construction traffic flows across the SRN and to highlight key routes/junction of concern.**	**2-3 weeks following receipt of minutes.**

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	DA noted that where feasible we are trying not to trench major roads and use HDD (or other trenchless techniques) where feasible. An outline Construction Traffic Management Plan will be produced. In addition, AIL special requirements will be identified in the ongoing study and covered in the Special Order.		
7.	**Next steps** (presented by DA) GR confirmed that [redacted] is the best contact for Heyhouses Link Road work. DA requested comments back on further information that will be sent out. For the Transport Assessment, DA noted that the assessment will need to identify areas of the highway to focus on. DA requested relevant information to be sent through following review of the information to be issued alongside the meeting minutes. DA emphasised the need for the traffic modelling reports for the three road schemes that will feed into the ES. GR to take this away. DA noted that the cables in the road section will be included in the PEIR as a qualitative assessment looking at the effects of lane closures and what effect on traffic would be and where would traffic go. It was noted that additional flows on Queensway would cause knock-on effects in Blackpool and Lytham. May creep into Lancashire so Liaison with GR may be required. Copy in [redacted] to the distribution list.		
Summary of Actions		**Status**	**Completion Date**
A1. A a	**LCC to provide modelling reports as agreed during EWG1 and discussed again during EWG2.**	**OPEN.**	**Outstanding.**
A2.	**DA to continue liaison with Blackpool Council regarding the extension to the study are and the updated redline boundary.**	**OPEN.**	**15/11/2023.**
A3.	**GR to provide details of a colleague who will be able to provide data for modelling input. Noted that this is [redacted].**	**OPEN.**	**2-3 weeks following receipt of minutes.**
A4.	**LM to distribute the slides and associated figures for comment.**	**CLOSED**	**15/11/2023.**
A5.	**EWG to provide comments on the information pack sent out following the EWG, specifically regarding the construction traffic flows across the SRN and to highlight key routes/junction of concern.**	**OPEN**	**2-3 weeks following receipt of minutes.**
Summary of Agreements			

RESTRICTED

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Ag1.	Attendees agreed with the approach to the PEIR and associated assessment including the addition of the highways option.	Closed.	12/09/2023.

RESTRICTED

I.3: Traffic and Transport – Meeting 3

I.3.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Traffic and Transport EWG Meeting 3	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Transmission Assets Noise and Vibration EWG Meeting 4		

MINUTES OF MEETING

MEETING DATE	:	15/08/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted]
ISSUED BY	:	[redacted]

Attendees:

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted])

Apologies:

- [redacted]
- [redacted]

Agenda

1. Introductions.
2. Programme update.
3. Site selection update.
4. Project Update.
5. Baseline updates since PEIR.
6. Evolution of the project.
7. Transport assessment & EIA.
8. Mitigation.

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	**Meeting recorded/not recorded.**		
1.	**Introduction** (presented by LA]) Welcome and introductions by all. Attendees captured in the list at the beginning of the minutes.		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
2.	**Programme update (presented by LA)** The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. As a result we are starting to set up the EWGs whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will afford feedback on the PEIR and project as a whole. The Project will use this feedback to develop and refine assessments and refine the project further. In 2024 the Applicant will be undertaking a targeted consultation on changes adopted since the submission of the PEIR. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest anticipated construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
3.	**Site selection update** (presented by LA) A summary of the site-selection process was presented, highlighting the key areas in which the Transmission Assets Order Limits has evolved since the submission of PEIR and statutory consultation. The landfall area and onshore export cable corridor has been refined to reduce the number of cable route options. The previous 400 kV grid connection cable corridor has also been refined to a corridor between the onshore substations and the grid connection at Penwortham. A singular site for the siting of the onshore substation has now been selected for Morecambe and further refinement has been made to the Morgan onshore substation including siting and orientation, which considered stakeholder responses. A decision has also been made to use Gas Insulated Switchgear, rather than Air Insulated Switchgear for the Morgan onshore substation, leading to a reduction in the footprint and size of building required. There has also been refinement of the crossing technologies, including the trenchless techniques to be used at landfall and to cross the River Ribble. Refinements have also been made on the locations for the use of horizontal directional drilling NS queried : Have local Highway Authorities had their concerns considered? Will the local highway authorities had the chance to see more detailed project information prior to submission? AT explained this is the third EWG and [redacted] will explain what we've consulted on and what has changed in response to the previous EWGs		

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	and that further detail on the project changes will be provided in this EWG. DA explained information was provided at two previous EWGs and technical notes were provided for feedback. LAld explained that more detail would be appreciated regarding vehicle travels, the route of the cable into Penwortham would be appreciated as the previous EWGs were based on preliminary information.		
4.	**Baseline – updates since PEIR** (presented by DA) At PEIR, three new road schemes were identified: • Preston Western Distributor Roads • M55 Heyhouses Link roads • A582 South Ribble Western distributor dualling At PEIR, modelling reports were obtained to estimate future traffic flow. Preston, Western Distributor Roads and M55 Heyhouses Link roads are now open. So since PEIR, new traffic surveys have been undertaken in March/April 2024 in relation to the Preston Western distributor road which means the assessment is no longer reliant on modelling reports. WebTRIS data and new traffic survey data has been used to establish traffic flows, existing traffic flows on the surrounding road network and on the Preston Western Distributor Road itself. For the M55 Heyhouses Link Road, finalising the baseline for this. As the road has only opened in June 2024, the publicly available traffic modelling is being used to determine the change in traffic flows. For the A582 South Ribble Western distributor dualling, there is still uncertainty whether this will overlap with the Transmission Asserts construction period. Lancashire County council may be able to provide more information on this, as revised plans propose improved provisions for sustainable travel and to improve journey times using new technologies. A full business case still needs to be prepared and it is a consideration for the RPS traffic assessment to understand if any of the changes will come forward in the time period of this assessment. As Transmission Assets are looking at construction beginning in 2027, it has been established that traffic flows are unlikely to change that much in terms of the scheme as a whole. Traffic surveys have been undertaken along local roads in March and April 2024 and data obtained from WebTRIS along SRN from September 2023 onwards. Also looking at traffic growth rates up to the construction year of 2027 and that's been taken from Department for Transport's (DfT) Trip End Model Presentation programme. Map presented of methodology to account for the previously mentioned 3 schemes. The map presented has previously been shown on the issued technical note which outlined on how traffic surveys were going to be done. These surveys have now been undertaken to establish baseline position.		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	The updates were summarised which have informed the updated baseline using new traffic surveys undertaken in March to April 2024 and WebTRIS data from September 2023 onwards. Work carried out includes using observed traffic flow data from M55 Heyhouses L:ink road Modelling report, traffic growth rates to 2027, cumulative development long list, which is an interrogation of all emerging developments, submitted planning applications and allocated sites. For committed developments which are relevant, traffic growth rates have been applied to baseline traffic flows to create 2027 baseline traffic flows. NS Queried if the approach and background information will be shared with the local authorities to check they agree with the methodology. DA acknowledged that the importance of ensuring the methodology is transparent. Technical notes were issued early 2024. Which DA has not received feedback for. AF confirmed that WSP responded to this technical note on behalf of National Highways. DA confirmed that the details on the approach will be issued and provided enough information for analysis to be done. However due to the timeline, it may not be possible to issue in the format we'd like prior to submission. AF would like opportunity to consult on methodology prior to submission.	**RPS to circulate PowerPoint.**	

5.	**Evolution of project (DA)**
	<u>Installation of cables within highway</u>
	A figure was presented which showed that at PEIR, installing cables within highway in the residential streets was considered. This is no longer proposed. Cables will be installed within grassed area between runway and residential streets.
	
	<u>Construction traffic flows (DA)</u>
	
	Construction flows have evolved. For the PEIR, the engineers considered:
	
	• Construction Materials
	• Construction methods
	• Staffing requirements
	  ○ Specialist (30%)/Non Specialist(70%)
	  ○ Split based on experience of other similar projects.
	  ○ Specialist workers will stay in local accommodation.
	  ○ Non specialist workers will commute from home.
	
	Construction traffic flows have been updated from PEIR to reflect the evolution of the project.
	
	Across the board, there is slight reduction in overall daily construction vehicle movements from what was presented at PEIR.		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Access point and access routes A figure was presented to show access routes and daily construction vehicle movements. No changes to access routes from what was presented at previous EWG. It is assuming a worst case scenario, where all HGVs would arrive from one direction For assessment purposes, it assumes HGVs would all arrive from each of the following directions: • M6 North • M6 South • All from M61 to the south • M65 to the east This allows for maximises HGV numbers on highway networks from each direction to be considered, to account for day to day variations. For example, there may be days where the majority of HGVs arrive from the M6 North or from the M6 South, this is considered in the assessment. The assessment also considered construction staff travel movements, which has been done through gravity models in the surrounding areas and where staff may originate from and which is the same process as PEIR. DA explained that this figure is very similar to what has been circulated previously however the vehicle numbers have reduced. At the Morgan Substation, access will be from A583 Kirkham bypass with a left in/left out priority junction. At the Morecambe Substation, access will be from A584 Preston new Road with a left in/ left out priority junction. Compound and substation accesses were also shown on the figure presented. DA preparing access designs for these accesses in accordance with highway design standards so that vehicle movements can be accommodated safely. NS queried the number of vehicle movements expected per day/hour for the project as a whole and if there are any limitations in place. NS also raised that a fracking project was not able to be supported in the local area due to the pressure on local road networks and highlighted the importance of presenting sufficient information to allow the highway authorities to come up with a conclusion on whether highways impacts can be accommodated. NS queried what restrictions will be in place for construction traffic, especially around sensitive areas. AT confirmed standard working hours will be 7am-7pm, Monday to Saturday. There will be night working, for example works around landfall works, direct drilling and concrete pouring will occur at nighttime. AT stated that if any work is required outside of these working hours, agreement will be sought with relevant local authorities.	Access route maps to be circulated	

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	AT suggested a commitment could be put in place around working around sensitive areas. An outline Construction Traffic Management Plan (oCTMP) will be submitted with application. Detailed CTMP will be prepared. NS suggested ensuring sufficient information is provided in outline CTMP to allow the approach to be investigated. The highways authorities want to work collaboratively. DA explained the aim of previous EWGS and technical notes was to provide information to allow collaboration. Information requested by NS will be provided. JE raised that Preston City Council Environmental Health department do not usually agree with 7am-7pm working hours, 6 days a week, especially in sensitive areas e.g. residential. Usually they would agree to 8am-6pm, 6 days however with Saturday as half a day. AT clarified that 6-7 would be soft start with no noisy operations at this time. **Abnormal Indivisible Loads** Delivery of transformers (up to 300 tonnes) will be required, being initially considered from Preston Marina in accordance with DfT water preferred policy. Alternative delivery option may be from Priority park on the southern side of the River Ribble. Movement of transformed require special order by DfT, it will not be granted as part of the DCO. Further assessment required by heavy haulage contractor to confirm arrangements for the delivery of transformers post content. NS queried will local highway authority involvement be required when applying through DfT. DA answered once a route and a landing point has been confirmed and the route has been established by the heavy haulage contractor, all of the relevant authorities will be contacted as part of the application made to the DfT. This will include highway, bridge and rail authorities for example. All must confirm no structural considerations or impacts. Once all has been approved by the relevant authorities, DfT issue the special order. NS queried whether will local highways authorities be contacted prior to this application DA – Due diligence process of DfT will be to liaise with all necessary authorities. Once satisfied there will be no undue impacts, application will be submitted to DfT.	AT – To raise commitment regarding working around sensitive areas. DA - oCTMP detail on sensitive areas e.g. schools AT – Follow up with NS AT – To raise working on a Saturday.	

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date

6.	**Transport Assessment and EIA**
	
	The EIA undertaken is in accordance with IEMA publication 'Environmental Assessment of Traffic and Movement' (2023).
	
	Transport Assessment has been undertaken based upon comments from previous EWGs:
	
	• M6/M55 Interchange and M6 / M65 /M61 Triangle
	  • Analysing peak hour and shoulder peak hour traffic flows.
	  • Showing negligible construction vehicle movements during peak hours.
	  • Showing shoulder peak hour traffic flows would not exceed those during peak hours following addition of construction traffic flows.
	  • There's a couple of peak months through both locations where there's approximately 30 vehicle movements during the peak hour, but these are temporary.
	
	NS Queried whether the 30 vehicle movements referenced is 2 way or one way and DA confirmed this was two way, including both arrivals and departures.
	
	• Blackpool and St Annes
	  • Blackpool council previously raised that works or events along A 584 Clifton Drive, B5261 Queensway and M55 Heyhouses Link Road can affect traffic and congestion in Blackpool and Lytham St Annes and
	  • This has been considered in the assessment and now, works will not be undertaken on residential routes south of airport
	  • There will be a commitment to HDD/other similar so that there is no open cut trenching within the highway.
	  • There are no longer any works or events on these roads that would cause congestion within Blackpool and St Annes.
	
	NS stated that the M55 houses Link Road has opened and there is a major development coming forward which will be making major highway changes.
	
	NS also stated the importance of considering seasonal traffic been considered due to the coastal towns e.g. during the summer and for the Blackpool illuminations.
	
	DA responded that they are looking at the developments as part of the cumulative and committed developments. Seasonal traffic is useful insight which we can consider as a team and will look at covering in CTMP
	
	NS queried whether there is a plan to show the finalised cable route?
	
	DA stated that the previous maps presented show order limits
	
	AT confirmed that the Order Limits have been finalised and that there is approximately 100m width for the corridor.
		DA – Consider seasonal traffic in assessment	

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	Cumulative development The cumulative development long list has been compiled and interrogated to identify emerging developments that may overlap with the construction period of the transmission assets. It has been identified which ones may generate significant traffic flows during the construction period along the access routes. So there is the standalone assessment and cumulative assessment to consider these developments.		
7.	**Mitigation (DA)** Committed to A, B and Classified unnumbered roads (known as C roads) will be crossed with HDD or other trenchless techniques not including micro tunnelling and direct pipe. This will mean free flow of traffic. The exception is Leech lane as it is very narrow, trenchless techniques may not be possible here so traffic management may be needed here). An Outline CTMP has been prepared and will be submitted with DCO. A CTMP will be developed in accordance with the CTMP prior to construction. Further appropriate management and mitigation plans will be implemented as part of the construction, operation and maintenance and decommissioning phases of the Transmission Assets, including but not limited to an Onshore Decommissioning Plan Environmental Management Plan and a Code of Construction Practice. Measures will also be secured through Special Order to permit the movement of Abnormal Indivisible Loads on the highway following an application by the appointed heavy haulage contractor.		
8.	Questions DA summarised that this meeting has covered how the project has evolved and what traffic aspects are being looked at. LAld and AT confirmed a response to the technical note was received by AT on 17th April 2024. NS expressed appreciation for the presentation and that engagement would be appreciated. No more questions or anything else to add from DA, LA or AT.	AT to engage with NS	
9.	**AOB** N/A		
Summary of Actions			
A1.	Circulate PowerPoint Presentation	RPS	
A2.	Circulate access route maps	RPS	
A3.	To raise commitment regarding working around sensitive areas.	AT	
A4.	CTMP to contain detail on sensitive areas e.g. schools	DA	
A5.	To raise weekend working	AT	

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
A6.	Consideration of seasonal traffic in assessment	DA	
Summary of Agreements			
Ag1.	To follow up on emails from NS	AT	
Ag2.	To engage with NS going forward	AT	
Ag3.			
Ag4.			
Ag5.			

Appendix J: Noise and Vibration and Air Quality

J.1: Noise and Vibration – General Discussion

J.1.1.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Morgan and Morecambe General and Noise Discussions	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Morgan and Morecambe General and Noise Discussions		

MINUTES OF MEETING

MEETING DATE	:	09/02/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted]
ISSUED BY	:	[redacted]

Attendees:

- [redacted]

Apologies:

N/A

Agenda

1. Section 42 responses.
2. Assessment update.
3. Commitments and mitigation.
4. Wider application documents.

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	**Meeting recorded/not recorded.**		
1.	**Section 42 responses** AS outlined that the S42 comments related to noise and vibration mainly focussed on substation sites and sensitive receptors such as schools in the immediate areas surrounding the sites. In addition, concerns were raised regarding the acoustic character of the substations themselves as well as the potential for low frequency hums that tend to be associated with the operation of high frequency equipment. AS noted that a lot of the concerns raised could be covered through the fact that the assessment approach for operational		

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ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	noise from each substation will be relative to the representative night time background sound levels at the nearest and most exposed noise sensitive receptors. This will be derived from the baseline survey sound data and allow for 24/7 operation to be covered and assessed. AS highlighted that Fylde Council requested involvement in discussions with regard to the methodology and approach that will be utilised to assess and mitigate the noise impacts of the substations. AS concluded by noting that the scope of the call will be to present the proposed approach to the assessment of operational and construction noise for the substation sites and then agree this with Fylde Council (who are present) to ensure that they are happy with the approach and that by using it, no noise significant impacts would result.		
2.	**Assessment update** AS highlighted that the first survey was undertaken in June 2023, however, a lot of positions had to be moved around or missed due to access restrictions. Now that the scheme has been refined further, the plan is to undertake a second set of surveys at the locations that were missed. These areas mainly focus on landfall as it was areas along the coastline where access could not be taken. The closest receptors to the substation sites were captured in the first round of surveys so representative background sound levels at these locations have already been obtained. AS flagged that he will keep the survey positions under review if the scheme develops further, but at present, the data already obtained is sufficient for the assessment of the substations. AS discussed that the translation of the assessment criteria outlined in BS 4142:2014+A1:2019 for the operational assessment of the substations within the EIA is not a simple task. Therefore, in order to simplify things and ensure that there is low operational impacts on receptors around the substation sites, the approach being taken is that if +5 dB above background at the closest receptor is an adverse impact in terms of BS 4142:2014+A1:2019, then if the difference between rating level and the representative background sound level at the most relevant receptors is less than +5 dB, then the impact will be low. As the substations are being designed against night time background noise levels, this will ensure that the impacts are low across the 24/7 operation of the substations. AS outlined that the assessment is not only looking at the substations in isolation, but will also assess them cumulatively. This will be done against the same criteria to ensure that the combined operational noise impacts of the substations does not		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	result in significant impacts. This is aided by the separation distance between the two substations. DK asked what the distance between the substations is. AT noted that is approximately 450 – 500 m. AS noted that there are some receptors situated between the two substation sites, but the site selection for the two substations has reduced the number of receptors between the two sites. AS continued by highlighting that they have experience with substation noise and the various noise sources associated with both AIS and GIS engineering options. It was noted in the Section 42 consultation responses that the tonal components around 100 Hertz which are present in the spectra of high voltage transformers are going to need careful consideration because low frequency noises travels far and can be challenging to mitigate. There are mitigation options available to control this type of noise and these will be considered. AS discussed that the construction noise and vibration assessment will be undertaken with a reference to the DMRB – LA111 – Noise and Vibration and BS 5228:2009+A1:2019. A mixture of the two has been selected for the assessment as BS 5228:2009+A1:2019 is better suited in terms of duration while the DMRB – LA111 – Noise and Vibration guidance is better for defining the significance of effects due to the more transient nature of the works. In terms of the construction equipment to be used, AS noted that they will work with the wider project team to establish what equipment is likley to be used and where this would be located and the duration of use. The assessment of construction noise will then be undertaken with the threshold values outlined in BS 5228:2009+A1:2019. Following this, some elements of the best practicable means from BS 5228:2009+A1:2019 will be utilised where needed.		
3.	**Commitments and mitigation** AS presented the proposed commitments and mitigation with regard to noise. No comments were raised on these and they can be viewed in the slide deck.		
4.	**Next Steps** AS noted that the next steps would be to undertake the additional survey wok which may include additional locations upon review of the updated scheme. AS highlighted that the main aim was to make sure Fylde Council are happy with the proposed assessment criteria and asks if there is anything in particular in terms of the management plans that Fylde would like to see. DK queried what would process would be in place to deal with complaints once the work starts. AS noted that there are options for this. All the best practicable means and		

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
	all embedded mitigation measures will be in the CoCP alongside construction working hours. Mitigation measures such as quieter equipment will be considered as part of the embedded mitigation, and where residual effects are present, further mitigation will be introduced as necessary to ensure that the threshold values are not exceeded. If complaints are received, then there are options to undertake noise and vibration monitoring. This will ensure compliance with the threshold values and will be included as part of the construction noise and vibration management plan.		
Summary of Actions			
A1.	**Slides and minutes to be issued to attendees**	**AT**	
A2.			
A3.			
A4.			
A5.			
Summary of Agreements			
Ag1.	**Fylde agreed that the assessment approach was thorough and that they were happy with this for the ES.**		
Ag2.			
Ag3.			
Ag4.			
Ag5.			

J.2: Noise and Vibration – Meeting 1

J.2.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Noise and Vibration EWG Meeting 1	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Transmission Assets Noise and Vibration EWG Meeting 1		

MINUTES OF MEETING

MEETING DATE	:	21/04/2023
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted]
ISSUED BY	:	[redacted]

Attendees:

- [redacted]

Apologies:

- [redacted]

Agenda

1. Introductions
2. Overview of the Transmission Assets project
3. Programme
4. Overview of Evidence Plan Process and Expert Working Groups
5. Onshore Route Planning and Site Selection
6. Noise and vibration –
   - Baseline surveys;
   - operational noise impact assessment methodology; and
   - construction noise and vibration impact assessment methodology.
7. Next steps and AOB

ITEM NO:	DISCUSSION ITEM:	Responsible party	Date
Notes	**Meeting recorded/not recorded.**		
1.	**Introduction** (presented by AS)		
2.	**Overview of the Transmission Assets (presented by AS)** **About the wind farms (presented by AS)**		

DRAFT

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	Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project, located in the east Irish sea. The Morgan Offshore Wind Project is located approximately 22 km (12 nautical miles (nm)) from the Isle of Man and approximately 36 km (20 nm) from the northwest coast of England (when measured from Mean High Water Springs (MHWS)). The anticipated nominal capacity of the Morgan Offshore Wind Project is 1,500 Megawatts (MW). Morecambe Offshore Windfarm Limited (Morecambe OWL), a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd. (Flotation), is developing the Morecambe Offshore Windfarm. The Morecambe Offshore Windfarm is also located in the east Irish Sea approximately 30 km (16 nm) from the northwest coast of England (when measured from MHWS). The anticipated nominal capacity of the Morecambe Offshore Windfarm is 480 MW. **About the Transmission Assets** (presented by AS) In July 2022, the UK Government published the Pathway to 2030 Holistic Network Design documents, which set out the approach to connecting 50 GW of offshore wind to the UK electricity network (National Grid ESO, 2022). The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm would work collaboratively to develop their transmission assets for connecting the wind farms to the National Grid at Penwortham in Lancashire. Morgan OWL and Morecambe OWL (the Applicants) are therefore seeking development consent for transmission assets comprising shared offshore export cable corridors to landfall and shared onshore export cable corridors to onshore substation(s), and onward connection to the National Grid electricity transmission network at Penwortham, Lancashire. These are known as the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to as the Transmission Assets). Both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm fall within the definition of a Nationally Significant Infrastructure Project (NSIP), as they exceed the threshold for an offshore generating station of 100 MW, set under the Planning Act 2008, as amended. They therefore require an application for development consent to be made to the Planning Inspectorate. In relation to the Transmission Assets, the Applicants sought a direction from the Secretary of State under section 35 of the Planning Act to confirm that they should be treated as development for which development consent is required under the Planning Act 2008, as amended. A direction was given on 4 October 2022 and the Applicants are now pursuing a single		

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	Development Consent Order (DCO) for the transmission assets for both wind farms. It is anticipated that the Applicants will apply for a DCO which authorises two coordinated but electrically separate sets of transmission works (for example, where each offshore wind farm would have its own transmission cables and substation infrastructure).		
3.	**(Programme and key milestones** (presented by AS) **Key Dates** (presented by AS) The Applicants undertook pre-scoping engagement in 2021 and early 2022. Throughout 2023 the Applicants will progress with consenting and both offshore and onshore surveys. The Scoping Report was submitted in October 2022. A Scoping Opinion was received in December 2022. As a result we are starting to set up the EWGs whilst we work through the responses we have received as part of this process. The Applicants aim to publish the Preliminary Environmental Information Report (PEIR) in autumn 2023, with formal consultation scheduled for later in 2023. Statutory consultation period pursuant to sections 42, 44 and 48 of the Planning Act (2008) which will afford feedback on the PEIR and project as a whole. We will use this feedback to develop and refine our assessments and refine the project further. The Transmission Assets application is currently planned to be submitted in Q3 2024. The earliest we are anticipating earliest construction commencement is 2026 and aiming to be operational towards end of 2028/2029.		
4.	**Overview of Evidence Plan Process and Expert Working Groups** (presented by AS) An overview of the evidence plan process was presented. The presentation slides are attached. Highlights are below: The proposed approach has been developed following the Planning Inspectorate and Defra guidance and recent guidelines produced by Natural England. The EP is a mechanism to agree upfront what information the Applicants need to supply to the Planning inspectorate Examining Authority as part of a DCO application. It allows the Applicant to demonstrate that information provided in the application is appropriate and that the Applicants have endeavoured to agree this with the key parties. The EP process has historically been focused on the Habitats Regulations Assessment (HRA) process. However, in line with recent best practice, the Applicants propose to extend this to include the EIA process, as set out in the EWG slides later in the presentation.		

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	There is a separate EP process for the Transmission Assets to those of the Morgan Generation and Morecambe Generation assets. **Roles and responsibilities** The key roles and responsibilities of applicants and stakeholders throughout the EP process are set out in the EPP Terms of Reference (ToR). The EP process is led by the Applicants. The responsibility for updating the EP is with the Applicants, with feedback from the relevant consultees. **Overview of Evidence Plan Steering Group** The EP Steering group oversees the development and monitoring of the Evidence Plan and its progress and meet at key milestones throughout the programme. The first EPP steering group meeting was help in January 2023, and a second meeting is being agreed. **Overview of identified Expert Working Groups** The aim of these EWGs is to discuss and agree (where possible) key elements of the EIA and HRA during the pre-application period. With the overall aim of having a lot of the ground work completed on the Statements of Common Ground (SoCG), so the Examination is only focussing on the key issues. Slides are provided at back of pack that set out the broad approach to agreement in the EWGs and key areas where we are looking to get agreement on. First EWGs will be established in early 2023. Some of the topics will be combined into one meeting and discussion of the scoping opinion will be undertaken within EWG meetings in an effort for efficiency. After the initial EWGs we are looking to discuss project updates, the ongoing baseline work and survey findings. We are looking to build on the approach and working for Transmission Assets in terms of methodologies etc. The ToR includes a broad approach to the EWG meeting. However, some topics are likely to involve more meetings and consultation than others. This will be topic dependent. The meeting minutes will be accompanied by Agreements Logs to record all the agreements. There is also the Statement of Common Grounds (SoCG). **Noise and Vibration EWG** Remit of the noise and vibration EWG focusses on baseline sound survey, in agreeing the measurement positions and survey methodology, as well as the wider methodology for the operational and construction noise assessment.	**Action: DK and NT to confirm the proposed survey locations and methodology are suitable and no further locations are required.**	**XX/05/2023**

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	Best practice will be adopted for the assessments of noise and vibration impacts. The assessments will be undertaken with reference to nationally accepted guidance, British Standards, and additional local requirements, if specified.	**Action: DK and NT to confirm if there are any local requirements for consideration as part of the noise and vibration assessment**	**XX/05/2023**
5.	**Onshore Route Planning and Site Selection** (Presented by AS) An overview of the route planning and site selection process was presented. The project team are currently in the process of route planning and site selection and are refining the PEIR boundary. This refinement is based on environmental data, commercial data and engineering constraints. From these, overarching high level principles are established such as the most direct route, avoiding small land holdings, crossing utilities and roads as close to 90 degrees (perpendicular) as possible. The remaining constraints are then mapped according to a BRAG approach: • Black – potential showstopper to development • Red – high potential to constrain development • Amber – immediate potential to constrain development • Green – low potential to constrain development. The aim for PEIR is to refine: • the indicative proposed onshore cable corridor to c. 120 m. • the indicative temporary compound areas and options. • the indicative temporary access tracks. • the Land Substation (LLS) – Zones already established. More elements will be included/considered at the PEIR as more feedback is received that can be fed back into the PEIR process. Just submitted our non-statutory consultation, which presents our current corridor and LSS zones. Landowners will also be consulted in order to establish potential constraints that may not be known. Feedback from EPP will also be used to inform the further refinement and mitigation, if required. The refinement of the PEIR boundary will continue and the progress will be presented to EWG at the next meeting. This will include outlining the constraints that have been considered and the outcomes of preliminary assessments.		
6.	**Noise and vibration**		

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	The comments received on the scoping opinion relevant to Noise and vibration were presented. The presentation slides are attached. Three comments received from PINS agreed with the following: • vibration from construction and decommissioning traffic can be scoped out; • operational vibration from the operation of the Transmission Assets can be scoped out; and • operational noise and vibration from the export cable and associated infrastructure, excluding the substations, can be scoped out. Operational noise and vibration associated with the substation remains scoped into the assessment. PINS requested that the ES should detail operation control measures for noise during operation and maintenance. This will be covered as part of the operational noise management plan which will be secured via the draft Development Consent Order (dDCO). PINS requested that noise surveys are to be compliant with the relevant British Standards, which will be the case, and to be agreed as part of the EWGs. United Utilities requested that the vibrational impacts on their assets should be considered. The project will engage with United Utilities on this matter. A summary of the scope of the noise and vibration assessment was provided. **Study areas** As per the EIA Scoping Report, noise sensitive receptor within 1 km of landfall and onshore substation are to be considered as part of the assessment. The EIA Scoping report proposed that noise sensitive receptors within 250 m of the onshore cable corridor, including the grid connection cable corridor are to be considered as part of the assessment. However, it is proposed to increase this to 300 m as this is considered to be better align with industry best practice. The EIA Scoping report proposed that noise sensitive receptors within 50 km of the offshore element of the Transmission Assets where construction piling is required as part of the assessment. However, it is proposed to decrease this to 20 km as this is considered proportionate against the developing design. It is also considered conservative against technical work that has	**Action: AS / LA are to engage with United Utilities to discuss their assets and how these are to be considered.** **Action: DK and NT to confirm the study area for noise and vibration assessment are acceptable, including those which have been altered from that proposed within the EIA Scoping Report.**	**XX/05/2023** **XX/05/2023**

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	progressed for other similar projects where impacts beyond 18 km were concluded to be negligible. Vibration sensitive receptor within 100 m of piling activities are to be considered as part of the assessment. This has evolved from the EIA Scoping Report, as it is now possible to understand the only vibration-generating activity will be that of piling. **Baseline surveys** Noise sensitive receptors have been identified from analysing OS address point data. Long-term baseline sound monitoring locations have been identified which are representative of the identified receptors based upon the existing sound climate. It is proposed to deploy sounds level meters and meteorological monitoring equipment at the locations for up to a week. Measurements to be taken are to be in accordance with the industry best practice and standards. The proposed survey locations were presented, which were split into receptors at landfall, along the corridor, and around the substation zones. The mapping also presented the address point data used to identify the most appropriate and representative noise survey locations. This data was used as part of a pragmatic approach to identify representative survey where there is a high density of sensitive receptors. The locations selected near landfall will be used to obtain noise threshold values for the assessment of construction noise impacts in line with BS 5228-1. This approach will be replicated along the cable corridor. A mix of short-term and long-term monitoring along the route will allow for the identification any variability in the baseline noise climate. Weather stations are proposed in up to three location across the Transmission Assets Red Lin Boundary, one by landfall, another along the refined cable corridor and another nearer the substation zones. The proposed positions in the substation zones will be used for the assessment of operational noise impacts and to derive representative background and residual sound levels (BS:4142) which will inform the assessment of the noise impacts. The threshold values will be derived in line with BS:5528-1 for construction. Long-term measurements will be supplemented by short-term measurements to account for any variability in the local noise climate. The survey locations have been selected to ensure they afford data relevant to the four substation zone options. Some short-term measurements are included to understand the noise variability in these areas, which cannot be identified from desk-top review.		

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	Construction noise and vibration impact assessment methodology A review of the proposed construction plant and locations will be undertaken and the typical noise emission spectra will be obtained from the industry standard guidance, BS 5228:2009 and manufacturers' data, where available. The project will then calculate the noise emission levels from the proposed construction activities and derive noise impact magnitude bands for worst-case construction periods and undertake analysis of the number and class of the receptors identified via the address point data to determine significance. Baseline traffic flows and a typical construction period, with and without the Transmission Assets construction traffic flows, will be used to understand the baseline, together with a worst-case construction period, with and without the Transmission Assets construction traffic flows. With reference to DMRB LA111, an assessment of the change in noise levels due to the construction traffic flows will be undertaken. If relevant, the project will assess any changes to future operational level due to any road modifications as part of the scheme. **Operational noise impact assessment methodology** Only consideration will be the onshore substations. A 3D model using will be built using SoundPLAN. The model will include OS topographical data, the available manufacturers' (or suitably representative) noise data for the equipment, and indicative sighting of the proposed plant. The nearest noise-sensitive receptors will be identified using OS mapping and address point data. The assessment will also take account of the primary mitigation as part of the assessment. An assessment will be undertaken in line with the guidance in BS 4142, accounting for any distinct acoustic characteristics of the proposed plant items as well as the context of the predicted impacts.		
7.	**Next steps and AOB** Once the methodology is agreed, the surveys will be undertaken. The survey data will then be analysed to obtain operational and construction noise criteria at the identified sensitive receptors and to identify the operational and construction noise sources. The next EWG will provide an opportunity to provide and update on the project and to present the preliminary findings from the assessment. AW suggested that the slides deck, higher resolution mapping of the survey locations, and the methodology alongside the	**Action: ASt to provide higher resolution survey location mapping**	**XX/05/2023**

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	adjustments to the study areas are provided alongside the meeting minutes. DK and NT agreed this would be useful. AW requested that comments on the survey locations be provided to confirm they are suitable and no additional locations need to be considered. DK and NT agreed this would be possible.	**alongside the meeting minutes.** **Action: DK and NT to confirm the proposed survey locations and methodology are suitable and no further locations are required.**	**XX/05/2023**
Summary of Actions			
A1.	**DK and NT to confirm the proposed survey locations and methodology are suitable and no further locations are required.**	**DK and NT.**	**XX/05/2023**
A2.	**DK and NT to confirm if there are any local requirements for consideration as part of the noise and vibration assessment.**	**DK and NT.**	**XX/05/2023**
A3.	**AS / LA are to engage with United Utilities to discuss their assets and how these are to be considered.**	**AS / LA.**	**XX/05/2023**
A4.	**DK and NT to confirm the study areas for noise and vibration assessment are acceptable, including those which have been altered from that proposed within the EIA Scoping Report.**	**DK and NT.**	**XX/05/2023**
A5.	**ASt to provide higher resolution survey location mapping alongside the meeting minutes.**	**ASt**	
Summary of Agreements			
Ag1.	The assessment will consider noise sensitive receptors located within 300 m of the onshore cable corridor, including the grid connection cable corridor as this is consistent with industry best practice. This represents an increase from the 250 m proposed in the EIA Scoping Report.	**OPEN**	
Ag2.	The assessment will consider noise sensitive receptors located within 20 km of the offshore elements of the Transmission Assets where construction piling is required. This represents a decrease from the 50 km proposed in the EIA Scoping Report as this is considered proportionate against the developing design. It is also considered conservative against technical work that has progressed for other similar projects where effects beyond 18 km were concluded to be negligible.	**OPEN**	
Ag3.	The assessment will consider vibration sensitive receptor within 100 m of piling activities. This has evolved from the EIA Scoping Report as it is now possible to understand the only vibration generating activity will be that of piling. This remains consistent with industry best practices.	**OPEN**	
Ag4.	The baseline sound survey will be undertaken as per the methodology proposed in the EWG.	**OPEN**	
Ag5.	The baseline sound survey will comprise the survey locations as presented in the EWG and the documents issued alongside the minutes of meeting.	**OPEN**	

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J.3: Noise and Vibration – Meeting 4

J.3.1: Meeting Minutes

MINUTES OF MEETING

Security Classification: Project External (Restricted)

Minutes of Meeting Number	:	Transmission Assets Noise and Vibration EWG Meeting 4	**REV. No.** :	Rev01
Minutes of Meeting Subject	:	Transmission Assets Noise and Vibration EWG Meeting 4		

MINUTES OF MEETING

MEETING DATE	:	18/07/2024
MEETING LOCATION	:	Microsoft Teams
RECORDED BY	:	[redacted]
ISSUED BY	:	[redacted]

Attendees:

- [redacted]

Apologies:

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Agenda

1. Introductions.
2. Programme update.
3. Project Update.
4. Site selection update.
5. Assessment Update – Baseline.
6. Assessment Update – Natural Tranquillity.
7. Assessment Update – Operational Noise.
8. Questions for Discussion.

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Notes	**Meeting recorded**		
1.	**Introduction (presented by AT)** Welcome and introductions by all. Attendees captured in the list at the beginning of the minutes.		
2.	**Assessment Update – Baseline (Presented by ASt)** Additional surveys works have been undertaken based upon the latest design information and at locations where access was not available for surveys undertaken in 2023.		

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	Short-term baseline sound measurements have also been undertaken on the Public Rights of Way (PROW) to the west of the substation locations to inform an assessment of operational noise at receptors on the PROW. At landfall a survey location was added for construction purposes. New positions include: LT – Lytham St Annes LT – Peel Hall Farm LT – Kirkham Bypass introduced to obtain representative noise levels for dwellings to the north of the Morgan Onshore Substation. LT – Parrox Croft LT – New Hall Farm NTM1 – NTM4 introduced to inform assessment of acoustics and tranquillity on PRoWs. A figure was presented to show the complete survey plan. The map differentiates the survey locations from 2023 which are shown in blue and the additional survey locations from 2024 were shown in green. In particular, there is a better spread of data at landfall and airport. The Kirkham Bypass location has allowed for representative noise levels, considering the road also. Access was unavailable at Parrox Croft was unavailable last year, which has now been surveyed in 2024. The assessment now has representative baseline data for all the receptors for the operations and maintenance phase.		
3.	**Assessment update – natural tranquillity (Presented by ASt)** The assessment of noise impacts on recreational receptors using PRoW to the west of Morgan Onshore Substation has been undertaken. In the Scoping Opinion, there was a request to look at the interrelationship with Landscape and Visual in relation to tranquillity. The assessment references the following guidance document: Tranquil Spaces: Measuring the tranquillity of public spaces (Bentley, 2019) which is a new method for measuring tranquillity of public spaces from an acoustic perspective. This document was used to guide the Natural Tranquillity Assessment as the 4142 standard is difficult to apply to transient recreational users of PRoWs. This method works by taking detailed onsite observations and baseline sound measurements at various locations around the area of interest: • NAMM: A number between 1 and 5 which represents the natural and man-made sound ratio; • PONS: Percentage of time during survey period where only natural sounds are heard; • L_{RR}: The contribution of road and rail noise to the tranquillity score; and • L_{AT}: The overall corrected ambient sound level. The empirically derived formulae were not presented as was beyond the scope of the EWG. The formulae have been tested		

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	against other Natural Tranquillity methodologies and provides a well rounded approach. Methodology involves deriving tranquillity score for a site based on four key variables. It was acknowledged that some categories are not that easy to decipher the different categories, but it still gives a level of tranquillity for the area. It was highlighted that in the context of tranquillity from the landscape perspective, the acoustic tranquillity is important to assess separately. It was highlighted how a well-rounded approach was required. Impact magnitude criteria for the assessment have derived for three ranges of tranquillity scores. It's based on Natural England Guidelines for Creation of Suitable Alternative Natural Greenspaces. This suggests a maximum limit of 60dB. Guidelines for Community Noise by the World Health Organisation defines that serious annoyance is over 55dB and moderate annoyance is over 50dB. The magnitude of impact matrix was presented, where for areas of high tranquillity (scoring between 7-9) noise levels equal to, or over 50dB would be a high impact. For less tranquil areas, noise levels equal to or over 60dB would be high impact.		
4.	**Assessment Update – Operational Noise (presented by ASt)** A 3D acoustic model has been constructed to predict operational noise levels for the following scenarios: Baseline (unmitigated) scenario Mitigated scenario Indicative engineering layouts were provided to the Noise authors and discussions have been had with relevant experts on how the equipment would be arranged and what equipment would be used. Outline mitigation measures will be provided to determine how potential noise impacts would be controlled. A table of plant items and their sound power level were presented for both Morgan and Morecambe substations. It was raised that the Sound Power Level proposed in the table are in the upper sound levels expected for this equipment, so the assessment would be conservative and assume the worst case. It was explained that super grid transformers are tonal at low frequency and low frequency is more challenging to control. It is important that consideration is given to as a high resolution of spectrum as possible for the super grid transformers. The noise emissions level spectrum for super grid transform was presented from a research paper and clearly shows the distinct peak at the 100Hz, third octave band and subsequent harmonics above that. This allows for the spectrum to be shaped to the sound power level that has been adopted and proper consideration can be given to the 100Hz band to ensure it's suitably controlled. This was an issue raised at the s42		

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	consultation regarding the substation "hum" and the spectrum presented is how this will be mitigated. A figure was presented. It was explained that representative background sound levels have been derived in line with Guidance 4142. The cumulative frequency of occurrence was plotted and receptors and have taken the lower end of the most frequently occurring background sound levels and made sure that they occur frequently enough statistically to be considered representative. There is a 1 km study area around each substation which is a conservative approach and to ensure that receptors in all directions from the substation are considered. Therefore variations in noise climate as you get further away from the Kirkham Bypass are considered. The closest receptors are 200 meters to about 600 hundred meters away from the Morgan onshore substation and 170 metres to about 600 metres from the Morgan substation. The substations will be running 24/7, therefore the assessment is based on nighttime noise limits. A limit is proposed where the rating level of all plants is less than +5dB above the representative background sound level. This allows us to do is minimise adverse impacts at the nearest receptors in line with national planning policy. The assessment is relative to the background sound level during the night time, which is higher, the day time is covered by default. At the consultation stage, schools were concerned about the noise from the substations, which this methodology addresses. The substations have been considered in isolation and cumulatively, Another figure was presented which shows the cumulative operation of each substation on common receptors. As such, it is ensured that noise levels from both substations does not exceed proposed baseline. Suggested wording for limit that will be secured as a requirement of the DCO. It is based on limits at the closest receptors to the substations.		
5.	Questions for discussion 1. Does the EWG agree with the assessment of approach for natural tranquillity 2. Does the EWG agree with the assessment of approach for operational noise? 3. Does the EWG agree with the proposed operational noise limits of the substations? 4. Does the EWG have any additional feedback on the information provided?		

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	DK stated that what has been presented sounds feasible and accurate and that he cannot envisage any problems with the methodology raised. DK queried if any of the other local authorities had any criticisms. ASt raised the point that Fylde are the only local authority within the operational area, therefore it has only been Fylde that has agreement on the methodology has been sought. South Ribble Council has been spoken to at the early stages and they deemed the methodology acceptable and the methodology has progressed significantly since then, with the inclusion of the natural tranquillity methodology DK asked about works whilst Blackpool airport is closed. AT clarified that this would be ground investigation works consisting of a couple of boreholes at the recreation ground would be carried out at day time. There would be up to 4 boreholes at Blackpool Airport which would occur at night due to the size of the equipment. A noise assessment of the work will be submitted to the council once complete. AT stated that it would be beneficial to avoid a Section 61 agreement and instead, when the noise assessment is agreed with by the council with a sufficient environmental mitigation plan and noise management plan in place, that it would be allowed under permitted development as it's during the day. The recreation ground borehole works would likely occur around mid September, with the works at the airport occurring after this. A different company are producing the noise assessment for the GI works and they have used ASt's teams' baseline information and that should be completed in the next fortnight.	AT to submit noise assessment on GI works at recreation ground and airport to DK and the Council once complete.	
Summary of Actions			
A1.	AT to submit noise assessment on GI works at recreation ground and airport to DK and the Council once complete		